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ABSTRACT

The second of a three-volume set, this handbook provides direction to teachers of grades 4-6 for integrating occupational information with the academic subjects of social studies, language arts, mathematics, and science. Following a section on bulletin board ideas, separate subject sections present teacher and student directed activities which correspond with the subject curricula. Arranged in order of difficulty, each student activity page is linked with a springboard idea in the teacher-directed activity section. Activities for individuals, small groups, and total classroom discussion are included. The bibliography contains the sources of materials that were researched for activity ideas. (Author/BM)

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OCCUPATIONAL EDUCATION COORDINATORS' HANDBOOK

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4-6

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ABSTRACT

The HAND BOOKS provide direction to K-8 educators for integrating occupational information with the academic subjects of social studies, language arts, mathematics, and science. Following a section on bulletin board ideas, separate subject sections contain teacher and student directed activities which correspond with the subject curricula.

A set of HAND BOOKS consists of three sections, K-3, 4-6, and 7-8, each having its own cover. The shrink-wrapped set is punched and ready to be placed in a loose-leaf binder to be supplied by the user.

PREFACE

Cooperative Approach to Teaching

"All children should be prepared for the world of work through programs of career education. The career education responsibility should be shared by the school district personnel at all levels so that in every curriculum area all types of occupations are shown to have an important place in today's world."[1]

To meet this goal and to help children learn with the greatest amount of success, a group effort is needed on the part of all educators: teachers, counselors, occupational information coordinators, and administrators. School must be a big business when it comes to operating financially, but it dares not even hint of big business when it comes to deciding what is best for a particular child at a particular moment. There is no formula for deciding what will be the best preparation for a person ten years, or even fifty years, from now. The age-old business of individualizing continues to be the basis upon which life depends. People do not like, do, think, or feel alike; neither can they all prepare in the same way for their places in the working world.

It takes much planning and understanding on the part of educators and parents to create in individual children an awareness of themselves, as well as an awareness of the world around them, and what lies ahead for them in the future.

School was once strictly book learning, but now, it seems, facts are not enough. Lately educators have begun to talk about the importance of understanding oneself, setting goals, testing ideas related to those goals, and being able to change goals without threat or trauma. Many educators are now promoting the idea that students must be ready for the working world whenever they leave the system of education. This process of occupational and self awareness, then, should begin early in education and continue to grow throughout the person's school experience. During students' formative years practically every experience has occupational significance. The courses and activities in which they engage influence their abilities, interests, and attitudes. These, along with their knowledge of the world-of-work and their

[1]"State Board of Education Goals Statement," Illinois Office of Education, adopted November 13, 1975.

physical characteristics, tend to affect their future choice of a career.

It is because teachers are always looking for suggestions and ideas for making their teaching more relevant to students' needs that these Hand Books have been developed.

Usability of the Hand Books

The Hand Books have been developed for three different levels of learners:

K-3 (Kindergarten through Third Grades)
4-6 (Fourth through Sixth Grades)
7-8 (Seventh and Eighth Grades)

Bulletin Board Ideas covering all subject areas introduce each Hand Book. The major portion of each Hand Book consists of teacher and student directed activities developed for each of the four major subject matter areas of: social studies, language arts, mathematics, and science. Within each subject, an attempt has been made to determine the scope of skills taught, to develop activities integrating occupational and self awareness with the scope of skills, and then to arrange the activities in order of difficulty.

The activities found in the Hand Books are not meant to be used exactly as they are written. It may be that the user will only gain an idea from the activity given as to how that activity can be adapted to his or her own students. The Hand Books are not educators' guides for a course of study, nor are the activities meant to be used in sequential order. They are, instead, idea books, springboards for thought and take off points from which busy educators may begin to see how occupational and self awareness concepts can be included with the skills presently being taught. Soon, including occupational and self awareness in subject matter becomes a way of teaching.

A space has been left after each activity for teachers' notes, perhaps stating how the activity works, what needs to be changed, or how to go about teaching the activity another time. These notes can also be used to assist the user in completing the User Evaluation Form found on page 189 . It is requested that each user complete and return the form to the name and address listed on the evaluation.

The Hand Books were designed to be placed in a loose-lead binder with the self adhesive label being placed on the spine of the binder to identify the contents. Using a binder permits the user to add or delete activities at will. The student ACTIVITY PAGES may be easily removed and reproduced for class use and returned to the binder again.

Special Populations

Special needs students were kept in mind as these materials were developed. There is no special section for the educator of the mentally

retarded, the gifted and talented, the culturally deprived, the physically handicapped, or the emotionally disturbed. Rather, many of these activities are already suitable for their use or can be adapted. It behooves the educator to pick and choose, rearrange and adapt. Being prepared for the world of work is no less important to special populations in schools than it is to the so called "average normal," American.

The authors were careful to avoid terminology which would be labeled, "sex-stereotyping." In using the activities, keep in mind that whenever an outside resource or material is used, there is a chance that stereotyping may appear. An effort was also made to include role reversals in some of the activities, that is, having males and females in non-traditional roles. Many textbooks are still biased, it is up to those who are involved with occupational and self awareness to point this out to students and vary the materials appropriately.

Hand Book Format

As visuals are an excellent teaching tool, each Hand Book has a Bulletin Board Ideas Section to be used by both educators and students. The Hand Books were developed by suggesting activities to illustrate how career concepts can be included with the existing curriculums of social studies, language arts, mathematics, and science. Each subject is color coded accordingly:

Social Studies - - Blue
Language Arts - - Salmon
Mathematics - - Green
Science - - Yellow

Within each subject area are two different types of activities. Teacher Directed Activities, the first portion of each section, contains springboard ideas for the teacher to use. Scope and sequence charts were studied carefully for each subject and a representative scope was selected which represents the broad areas covered by most texts. Student Activity Pages follow the teacher directed activities. These are ready to be copied and distributed to the students. Each activity page is linked with a springboard idea in the teacher-directed section. Often suggestions are made for additional activities for the students after they have completed the activity page.

Activities have been developed for individuals, for small groups, or for total classroom participation. Questions are included to provide leads for further discussion or additional study. The intent of these questions is to promote thought rather than to test knowledge.

Credit numbers found following some of the activities refer to the number assigned the source in the Bibliography. The Bibliography consists of the sources of materials that were researched for activity ideas.

Illinois Goals

More and more, emphasis is being placed upon occupational programs even

at the elementary level. To keep abreast of what the Office of Education, DAVTE, is aiming for, the goals have been outlined.

"At the elementary school level, an organized sequence of career development learning experiences is referred to as an Occupational Information Program. It encompasses career awareness, self awareness and career exploration activities. More specifically, Occupational Information Program activities should help a student to:

--develop an awareness of the dignity of work and the useful functions performed by workers.
--become aware of a larger number of occupations.
--develop a realistic self-concept of abilities and limitations as they relate to the world-of-work.
--learn about occupational opportunities through exploration."[2]

Also outlined are program goals. That list includes the following:

1. "Help the child realize the value of all occupations to society regardless of job hierarchy.
2. Help the child realize that workers achieve dignity by performing job functions in a highly acceptable manner.
3. Expand the child's knowledge about occupational families and a variety of occupations within each category.
4. Assist the child to recognize those aptitudes, interests, and personality factors which are important to job success.
5. Increase the child's understanding of individual abilities and interests.
6. Assist the child to develop positive attitudes toward school achievement and its relationship to occupational achievement.
7. Help the child to be aware that self-image will affect choice of work, and in turn, way of life.
8. Help the child to understand that rapid changes taking place in the world of work may necessitate advanced training or retraining for a related and a different occupation."[3]

Tasks and activities to assist educators in meeting these state and program goals have been developed through these Hand Books. It is intended that the given ideas and suggestions will supplement and enhance occupational information programs to the extent that all children will be better prepared for the world-of-work.

[2] Elementary Occupational Information Program, Keystone to Career Development, State of Illinois, DVTE, Bulletin No. 51-374, p.2.

[3] Ibid., p.8.

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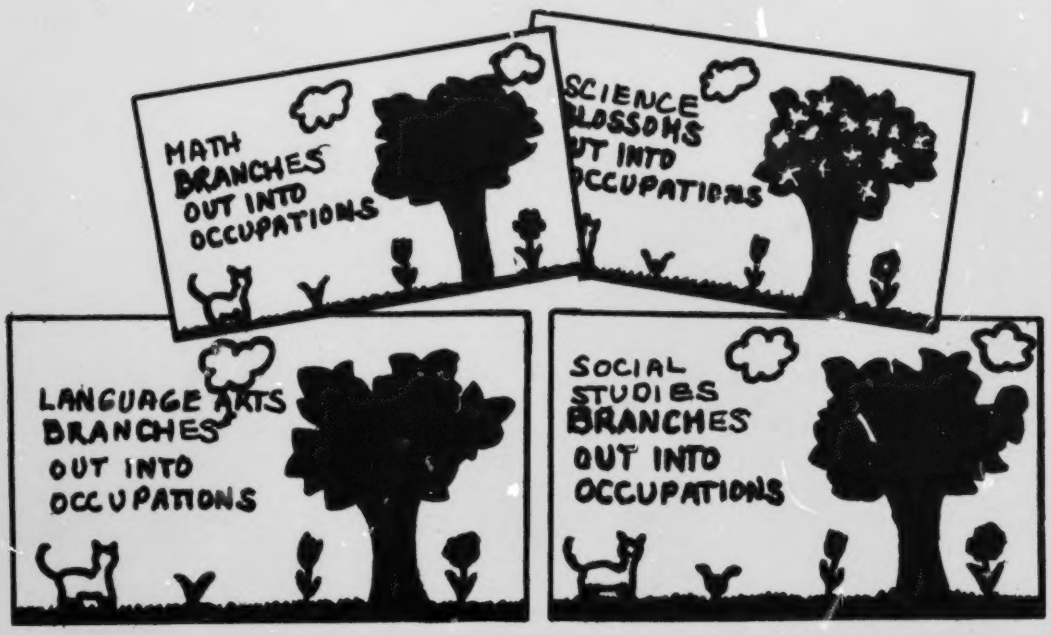
Carol Sanders

PROJECT DIRECTOR

BULLETIN BOARD IDEAS!

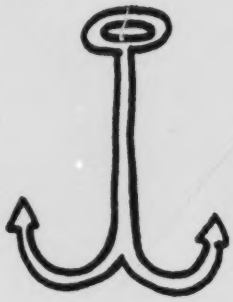
1. MATH, SCIENCE, SOCIAL STUDIES, LANGUAGE ARTS

   Establish four bulletin board areas, one each for math, science, social studies, and language arts. Every two weeks choose groups of four students to be in charge of changing the boards. Have the students display pictures, poems, puzzles or whatever they wish which relates the subject area to an occupation.



2. HOOKED ON GOOD WORK

To display students' work, first make an oversized fishhook of black construction paper. Put the caption, "Hooked On Good Work," in large black letters. Place both on light background. Mount the students' work on construction paper and display. Student work might include reports on jobs, people, interviews, pictures, etc. Beside each report display a small colored fish with the child's name on it. Discuss the importance of doing good work throughout life.

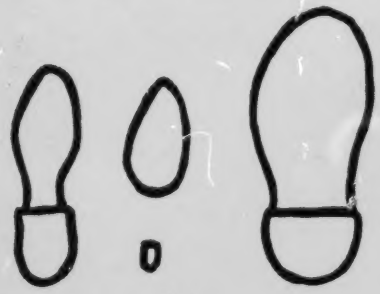


3. EBENEZER NEEDS A BARBER

Have the children help you draw a life-sized figure representing a person of their age. Then have them list as many occupations as they can which help that person is some way. Label the body according to occupations which are related using such as these: barber, shoe salesperson, optometrist, etc.

4. PUT YOUR BEST FOOT FORWARD

Have each child bring in a shoe box. Outline the shape of the child's shoe on the inside (simply step in box to make outline). Fill in the outline with tempera paints, scraps of fabric, stones or shells, or crayon using imaginative designs. Attach shoe boxes to bulletin board with tacks. Discuss with children where their feet might take them in life, what they hope to achieve and how they can meet their goals (home goals, school goals, personal goals, career goals,) etc.



5. WHAT'S YOUR BAG?

Have the children draw or cut out pictures (or even bring the real thing) of different kinds of bags used in various occupations. These might include paper bags, dry-cleaning bags, a doctor's black bag, back packs, attaché cases, etc. Number each bag and encourage the students to talk about the decisions each worker must make on the job.

6. FARMERS TODAY ARE NOT LIKE FARMERS 200 YEARS AGO

Find pictures to illustrate one occupation as it has changed during the last 200 years. Connect the pictures with yarn to show the sequence of change. Suggested occupations might include a farmer, a doctor, a pharmacist, a grocery store clerk, a fisher, a postal worker, a soldier, etc.

7. TOOLS OF SPRING

Have children draw on colorful construction paper all the tools that are used in the spring. Spring tools might include: gardening tools, building tools, farming tools, fix-it tools, painting tools, nursery tools for trimming trees and shrubbery, etc. Display these cut-out tools on the bulletin board and discuss the different jobs which use those tools.

8. WHO SAID, "AN ANT CAN'T"

Ants are famous for assigning jobs. They have builders, guards, food gatherers, house cleaners, and servants. After researching ants, make a large mound (hill) on one side of the bulletin board. Have students draw in ants of different sizes doing various jobs. On the other side put in big letters, "Every job is important!" Discuss how the different jobs that the ants do relate to assigned jobs in our own society.

9. THE CLUSTER IS IN THE BAG

Make a bulletin board titled, "The Family of Jobs Is In the Bag." Have a title of an occupational family on each bag (e.g., Business and Office, Transportation, Agriculture, etc.). Each group will explore the many different jobs which make up one cluster (family). Have a time limit, a week or two, within which to have a class contest seeing which group gets the most kinds of workers in their sacks. After the contest the groups could present the occupations they had discovered through use of puppets, pantomime, or short reports. Make sure the entire class has a chance to explore the lists contained in each bag.

10. BUSY BEES - BUSY PEOPLE

Divide the bulletin board into two sections. On one half illustrate the activities of each type of bee in the beehive - the queen bee, the worker bees, the drones, etc. On the other half illustrate activities of the people in city or country by dividing the board into five sections and illustrating each section with personal and public service occupations, business occupations, health occupations, industrial occupations, agricultural occupations.

11. A CHRISTMAS CAREERS BULLETIN BOARD

Have the students locate pictures of people who are employed particularly for the Christmas Season. These might include: Santa Clauses, sales people, toy makers, decoration experts, holly cutters, mistletoe harvesters, party caterers, Christmas music recording artists, entertainers, candlemakers, photographers, etc. Talk about what these people might do for a living the rest of the year (or do they prepare all year for the Christmas season?).

12. CAREER TOTEM POLE

This is a tall 3-D bulletin board constructed from cardboard boxes and covered with bulletin board paper. Have children cut out pictures of people working and place them on the side where the following skill is used more than other skills: Side 1, reading; Side 2, math; Side 3, art, music or physical education; Side 4, science. From this material, discussion is easy to stimulate and written reports can be made as to the importance of learning basic skills while in school.

13. OUR TOWN GROWS

Make a bulletin board display of businesses which have helped develop your community. Talk about how these businesses and industries contributed to the growth of your community, (buildings, jobs, money, new families, etc.).

14. OH NUTS:

Ask students to make a bulletin board about George Washington Carver who found over 300 uses for peanuts. Tell the children about his life and discuss his efforts and abilities. Discuss the possibilities of the childrens' present and future accomplishments if they put forth a great deal of effort and use their abilities.

15. HEALTH OCCUPATIONS EVERYWHERE

Have students draw or bring in pictures of a variety of health-oriented occupations. Make a bulletin board collage.

16. FROM RAIL SPLITTER TO PRESIDENT

Make a bulletin board of all the jobs Lincoln had during his life-time, such as farmer, rail splitter, President, etc.

17. JOB CHARTS

Have groups of pupils prepare picture job charts. Call on members of the group to explain why and how one could work happily on this job. Call attention to the kind of job selected. Strive to increase self-awareness and self respect in the pupil.

Example of charts:

Chart I - Pictures of Workers Who Sit or Stand All Day.
Chart II - Pictures of Workers Who Work With People.
Chart III - Pictures of Seasonal Jobs.

17. JOB CHARTS (Cont'd)

Chart IV - Pictures of Hazardous Jobs.
Chart V - Pictures of People Who Work Long Hours.
Chart VI - Pictures of People Who Work With Things.

Discuss reasons why workers select specific occupations.

18. CAREER EDUCATION KEEPS POPPIN' UP!!

Enlarge a group of mushrooms. Real mushrooms come in all shapes and sizes. Make mod versions that reflect variety in shapes, designs, and colors. Have the largest mushrooms 3-dimensional and extending a few inches from the board (similar to a flap). Students can look under the mushrooms for names of books, pamphlets, etc., to read about careers. Perhaps your librarian will loan you book jackets to display.

19. CONSTRUCTION MATERIALS

Using the outline of a house (see No. 22), have the students display samples of different house materials. Students will look for examples of materials which are used inside as well as outside the house.

20. SPECIAL WINTER PEOPLE

Place winter scenes around edge of the board. In the center, place pictures of people who have special winter-time jobs. There might be pictures from your newspaper of local workers. You might include people who repair telephone and electric lines, remove snow, sand roads, operate ski resorts, operate ice rinks, etc. You may also want to include manufacturers of winter equipment, but these should be singled out as being year-round jobs with products being in demand only part of the year.

21. DOORS OF OPPORTUNITY

Have pictures of different kinds of doors -- gates, front doors, safe doors, car doors, barn doors, small doors, large doors, fancy doors, rustic doors. Place them on the bulletin board so that pictures of occupations may be seen when the doors are opened (or lifted). Behind one door you might want to show a picture of a college, behind another, a trade school.

22. WHO BUILDS A HOUSE?

Build an outline of a house on the bulletin board using narrow strips of brown or black construction paper. Use strips inside the frame to represent 4 or more rooms. Perhaps you would want to make several houses using different styles: a ranch, two-story, tri-level, or any style you like. One house might have a sloping roof while another might have several gables. Use colored pictures from magazines to show various workers in different parts of the house: the painter, the plumber, the electrician, carpet layer, roofer, cabinet maker, upholsterer, carpenter, welder, appliance installer. Perhaps you could also include the contractor, a picture of the blueprints, the interior decorator and the landscaper.

23. WHAT'S IN A RAINDROP?

Make for the bulletin board huge raindrops (about 30cm long) out of aluminum foil. The raindrops are to serve as a background. Draw and cut out stick people silhouettes with arms reaching up to stand for people whose jobs are directly influenced by the amount of rain we receive each month. Stick figures might be labeled: farmer/planter, conservationist, soil and land engineers, dam builders, weather forecasters, road builders, grass cutters, gardeners, rain wear salespersons, etc. Discuss how the rain directly and indirectly affects all of us.

24. E PLURIBUS UNUM (ONE OUT OF MANY)

Make a large map of the United States (map should cover the bulletin board). Have the children make small paper hats of different colors and sizes representing the working men and women throughout the United States. Children can research kinds of hats from the past 200 years to the present worn by different workers with different skills. (Don't forget Uncle Sam's hat!)

25. TRAVEL WITH US!

Make a bulletin board display of various-shaped, multi-colored kites. Each kite can represent a job or career involved with traveling. Attach the name of the job (letters are vertical) to form the tail of the kite. Have kites with "tails" flying in all directions.

26. OUR STARS FROM AROUND US

Ask the pupils to bring clippings and articles about outstanding people from many walks of life who are living today. Display these on large stars on a bulletin board. Discuss the levels of achievement one often has to attain to reach an outstanding position.

27. FARM, SUBURB, OR CITY

Cut out symbols for farm, city, and suburb (barn, skyscraper, ranch-style home) and put on the bulletin board. Have students print occupations on slips of paper and place on bulletin board. With yarn connect the occupations to the area in which these jobs would be performed. A teacher could be located in all three but a hog farmer only on a farm. Discuss how the different lifestyles could affect choices of occupations and vice versa. Talk about the differences and similarities of jobs found in these areas.

28. SPACE TRAVEL

Present a unit on space, space travel, and the planets by planning a class trip through space. Design a bulletin board showing where you will blast off, planets you will pass, (units, stories to be completed,) and your final destination (outer space). Have students design their own space ships to mark their progress in outer space. Discuss school subjects which are important to astronauts and astronomers.

29. WORK - LEISURE

Divide a bulletin board into two sections. In one section post pictures of workers who are busy earning a living. On the other, display people in leisure time activities. Using yarn connect the worker with the type of leisure time activity the students think might correspond. Discuss how occupations can determine the life-style of a worker. Discuss how sometimes one person's work might be another person's hobby or play, (e.g., a sailing instructor may build cabinets for a hobby; the cabinet maker may teach sailing as a hobby).

30. EACH JOB IS A SPOKE IN THE WHEEL

Make a wheel showing how jobs are interrelated and how each supports the other. The garage attendant fixes the tire for the meat cutter, who in turn prepares meat for the garage attendant's dinner. Each spoke should be pinned across the hub with a service that two people perform for each other.

31. EVERYONE HAS NEEDS

Display an outline of a human figure in the center of the bulletin board. Discuss the various needs of people. Post these needs around the figure. Such needs might include: need to accomplish, need for affection, need for attention, need for understanding, need to belong, etc. Discuss how these needs can be met in the classroom, in the home, and someday on a job.

32. OUR COMMUNITY CHANGES

Have the students use newspaper clippings to make a bulletin board entitled, "Our Community Changes." Encourage the use of articles and pictures showing new businesses, civic improvements, social and political changes. Discuss how these changes affect job opportunities and job changes.

33. PAST AND FUTURE

Represent the past with a castle, the top of this castle has many towers. Place flying banners at strategic places in the towers. Each banner can hold the name of a career which existed during medieval times. Represent the future with a huge spaceship having many windows for space gazing. The windows can each represent the name of a career in the future that the students can foresee or imagine (might also include careers of the present).

34. SCHOOL SKILLS - WORK SKILLS

Have pupils make a bulletin board showing subject areas and skills that are learned in school and their relationship to careers or jobs in the future. Divide the bulletin board in half with school skills on one side and work skills on the other. Show the relationship by connecting with bright-colored yarn a particular skill to the worker or career needing that skill. Student-drawn pictures or magazine pictures may be used for illustrations.

35. INTERESTS DO CHANGE

Divide a bulletin board into three parts. Have students prepare the first section of the bulletin board with pictures indicating what their interests were when they were in 1st or 2nd grade. In the second section, display pictures of their present interests. Discuss with the class how their interests and desires have changed with physical and mental growth. Discuss what future changes they might expect and display possible future interests on the third section.

36. WHO NEEDS IT?

On your bulletin board, place circles of the "academic" courses offered in school. Have students extend circles from the center circle and indicate which jobs require that subject. Various types of research can be done in each area to determine how the subjects are used in particular careers.

37. WORK - HOBBIES

Have students bring pictures of workers and decide whether the people are working to earn a living or whether they are engaged in a hobby. Divide the bulletin board in half and display the pictures in the correct section. Pictures that could be labeled either work or hobby are to be placed in the center. Discuss why people are sometimes paid for doing things while other people do the same things just for fun.

38. CAREER VOCABULARY BUILDER

Have the students set up a "Career Vocabulary Builder Bulletin Board." Each month have a group of students research a chosen career and post a vocabulary list relating to it. The other students are to guess the career and drop their guess along with their name, date, and time of entry into a box. The first person who guesses the correct career is the winner. The group who researched the career is to give the meaning of the vocabulary words to the rest of the class for them to learn. Make sure every student has a chance to be a researcher.

39. ILLINOIS FIVE CLUSTERS

Have the students make a large bulletin board with titles of the Illinois five occupational clusters. Have the students either draw pictures showing a person working in an occupation, cut a picture from a magazine, or take pictures of workers and display in the proper cluster. You might even want to take pictures of the students working in occupations.

ILLINOIS OCCUPATIONAL CLUSTERS

1. Applied Biological and Agricultural Occupations
2. Business, Marketing, and Management Occupations
3. Health Occupations
4. Industrial Oriented Occupations
5. Personal and Public Service Occupations

40. JOBS THAT FIT

Make your bulletin board into a large puzzle. Use different colored construction paper for the various pieces. Color code the following list to coordinate with the puzzle:

--Jobs that pay a lot of money.
--Jobs that require skill with the hands.
--Jobs that require a lot of traveling.
--Jobs that require thinking and decision-making skills.
--Jobs that require many years of education.
--Jobs that require a lot of physical strength.

Have your children determine, correctly spell, and write the names of the jobs that fit the categories listed. Pin the job titles into the correct piece.

SOCIAL STUDIES
SPRINGBOARDS

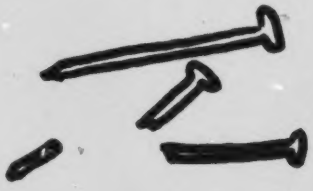
SOCIOLOGY/ ANTHROPOLOGY

1. LOOK WHAT I FOUND

Take a field trip to a place of historical value in your area. (The historical area could be a vacant lot or farmland outside of town.) Prior to the trip, you as a teacher could bury certain artifacts which a student could investigate to determine the work habits of a certain person or a group of persons. Example:

Objects could be those tools used by a carpenter. (Part of a blueprint for a cabinet, various sized nails, a broken hammer handle, a rusty saw blade, an old varnish brush, candle, etc. Note: Items should be broken and scattered through the site.)

After finding the articles have your students label and catalog (drawing a picture and numbering) each item. From the individual pieces found, have your students decide what each tool looked like when it was whole and the occupation of the user of the artifact. If possible have your students try to establish the date of its use. Once the date and occupation are determined make a comparison of that occupation, past and present. Have your students try to describe the way of life of persons who used the discovered artifacts.



2. PEOPLE MUST WORK TOGETHER

Compare the different types of work found among various cultures and groups of people. Discuss the need for people to work together. Have your students trace different groups in our country who have worked together for a common purpose such as:

1. Indian tribes

2. PEOPLE MUST WORK TOGETHER (Cont'd)

2. Space program workers
3. Early settlers and pioneers
4. Red Cross workers
5. Scouts
6. Military groups

3. WE DEPEND UPON OTHER WORKERS

After your students complete ACTIVITY PAGE 51, discuss how each of the workers uses the equipment and how we depend upon those workers.

4. OOPS, I HAVE NO BRAKES!

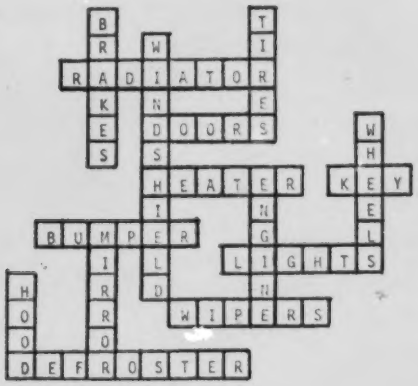
To show your students how workers on an assembly line play an important part in the successful production of a product, give each student a copy of the crossword puzzle, "Parts of Your Car," on ACTIVITY PAGE 53. After your students work the puzzle, discuss:

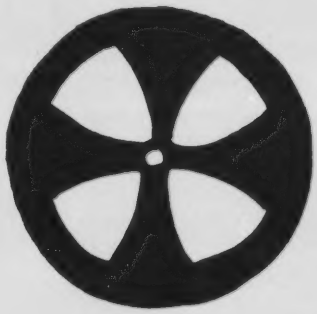
1. How is each part important to the driver of the car?
2. How are these parts put on the car? (in assembly line fashion)
3. What are some things that might happen if one of the assembly line workers did not do his or her job?
4. How important is each one of these parts to the successful operation of the automobile?
5. How important is each assembly line worker to the safety of the public?

As an extension, have each student choose one of the automobile parts mentioned in the puzzle and write a short imaginative story on what would happen if that part was missing from a car.

4. OOPS, I HAVE NO BRAKES! (Cont'd)

KEY





5. ABOUT FACE

To allow your students to realize how difficult it is to accept change in routine and environment, change the routine of the day and the arrangement of the room without informing the students. For instance, have the last subject of the day first. In math, expect them to do a difficult problem without explaining it. Ask questions in reading pertaining to a story they have never read. Promise extra time for physical education and then make up an excuse for not having it. When students ask questions about these procedures, inform them that it is your right as a teacher.

About noon, stop and discuss their feelings about this type of change.

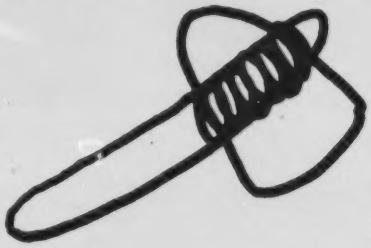
1. Was this fair? Why?
2. Would they like to do it again?
3. What did they learn from this situation?

Tie in the fact that Indians were uprooted from their traditional lifestyles and were forced to go to reservations. They sometimes be-

5. ABOUT FACE (Cont'd)

came maladjusted when they had to leave their family lands and hunting grounds to go and live on a reservation. Life on the reservation was boring and bitter and they turned to alcohol and drugs.

Can you think of any other situations in your community or nation that would have this same effect? Does busing students have the same effect?



6. FIELD OF SOCIOLOGY - THE SOCIOLOGIST

The sociologist is a specialist in the study of people, society, and social relationships. To help your students understand the work of the sociologist have them study the following vocabulary words:

1. Case study
2. Caste
3. Class
4. Culture
5. Group
6. Interaction
7. Mobility
8. Sociology
9. Prejudice

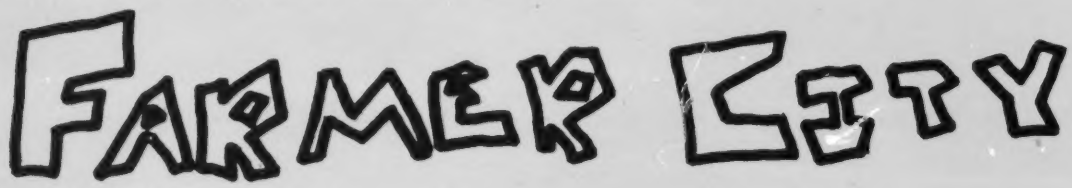
Hold a discussion revolving around the following questions: (or use reference material)

1. What are the major divisions or areas of the field of sociology?
2. How did sociology get its name?
3. What are the primary objectives of a sociologist?
4. What are some causes for social change?
5. What are the career opportunities for a sociologist?
6. What are the educational requirements of a sociologist?
7. What special skills and interests are desirable for one interested in a career in sociology?

GEOGRAPHY/ENVIRONMENT

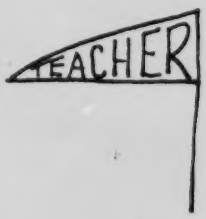
7. MAP RESEARCH

On a county or state map locate all the communities that were named for a product or the type of jobs done there. (e.g., Farmer City, Granite City, etc.) Or, find the name and occupation of the community founder. Discuss if the particular occupation had anything to do with the founding of the community.



8. WHERE WILL I FIND WORK

Put up a large map of the U.S. or World on a bulletin board. Have students design small pennants bearing the name of occupations. Let students pin their pennants on the board by saying, "I want to be a tugboard captain. I will have to live in a seaport city." The pennant is placed on a city by the sea. Another student might say, "I want to be a farmer. I will have to live where there is good rich soil and a mild climate." Discuss job possibilities in the different areas.



9. WE DISCOVERED LAND!

Have your students pretend that they have discovered a new land which has all the necessary resources for existence. Their problem will be to organize themselves so that they can carry on a high level of existence when they settle on this new land.

Procedure for planning might follow this:

1. Sketch a map of the resources and land features and give the land a name.
2. The children will decide what businesses they will establish. so that all needs are provided for.
3. A system of training for jobs will be devised.
4. A system of exchange will be developed.

9. WE DISCOVERED LAND! (Cont'd)

5. Another map of the proposed development will be sketched so that ideal placement of businesses, etc. can be decided on. Collages of possible area views could be made.

Credit - #4

10. I KNOW HOW TO GET TO THE PARK

To stress the importance of knowing directions and knowing how to give directions clearly to someone else have your students complete ACTIVITY PAGE 55. Why is it important to be able to give someone else clear directions?

11. THAT HOUSE IS A SALTBOX

Discuss various types of house styles and their possible design origin (e.g., Spanish, adobe, colonial saltbox, English tudor). Have each student bring a picture of a house or building and trace its origin, if possible. Study pictures of homes in other countries and discuss why those styles are used. Why have they been adapted by other countries? What are the primary functions of homes in other countries? How does environment help to determine home design? How does the environment affect house designers, construction workers, interior decorators, and landscapers?

12. TUNNEL INTO TIME

With students, enumerate ways in which living conditions vary due to geographical conditions.

Divide the class into "crews." Assume each crew is on a ship destined for America. The time setting is the early 1700's. Assign each crew a landing point along the Atlantic Coast (e.g., the tip of Florida, the Carolinas, Manhattan Island, Cape Cod).

Each crew must then:

1. Find out what each landing point is like in regard to climate, the terrain, the type of soil, available natural resources, or any other such variable.
2. List occupations that members of the crew would likely find under these conditions.

Students will assume one of the careers and explain it to the class as well as how the geographical location helped him/her determine the chosen occupation.

Credit - #11

13. ALL THESE CITIES ARE ON BIG WATERWAYS

On a map, mark off the following cities:

1. New York
2. Baltimore
3. New Orleans
4. Chicago
5. Pittsburg
6. St. Louis
7. San Francisco
8. Buffalo
9. Cincinnati
10. Boston

Have your students study these locations to see what they have in common. After they discover that being located near water is evidently important, discuss why the supply of water is important to industry. Make a list of occupations which depend directly upon water for work. Discuss what industry has done in recent years to our country's water supply and what is currently being done about it.

13. ALL THESE CITIES ARE ON BIG WATERWAYS (Cont'd)

As an added activity divide a map of the United States into several geographic areas. Assign a small group of students to study each area and determine the effect geographic factors have on work. Have the groups report their findings to the entire class.

14. CHARLESTON DEFINITELY DOES NOT NEED DEEP SEA FISHERS

Make two lists of the occupations: (1) those that are found everywhere, and (2) those that are peculiar to only one area. Why are certain occupations completely dependent upon certain conditions or locations? What occupations are found in areas where a particular climate necessitates that occupation? Discuss occupations which are most common in your region.

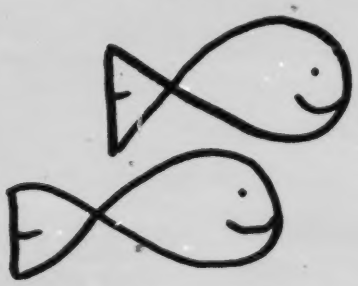
ADDED ACTIVITIES:

1. Have your students correspond with children in other areas of the United States to find out what their communities are like and the kind of work and workers found there. Booklets could be made up of all the information exchanged.

2. Invite a resource person who has lived in an area quite dissimilar to your local community to describe to the class the work differences and similarities.

3. Have the students investigate whether or not an occupation of their interest is likely to be found in a particular area of the United States.

4. Have your students imagine that they are to begin a community on the moon. The space ship is small and will carry only 10 persons to the moon. Have them name the 10 community workers they would consider important for the success of the moon community.



15. SHIP AHOY!

After completing a unit on early explorers, divide your class into 5 "crews". Each crew is given a country to develop, and a ship. Students decide the rank and jobs of the staff of the ship. They are to make a list of all equipment and supplies needed for the trip using only the $500.00 allowed. Once they arrive at their new country, they are to set up a community by building homes and establishing businesses, industry, and institutions, (e.g., schools, hospitals, post offices, government buildings, etc.).

Using the following list, the class is to determine how many of each of the following workers will be needed the first year in the new country. (Assume the population to be about 1,000 but remember some of those will be children and aged people as well as others who will not be employed.)

1. Over 50 workers
2. Between 25 and 50 workers
3. Between 5 and 25 workers
4. Less than 5 workers
5. None

Athletes
Building Workers
Butchers
Bus Drivers
Barbers
Business Executives
Bookkeepers
Bank Officers
Auto Salespersons
Assembly Line Workers
Appliance Servicepersons
Cooks
Carpenters
Computer Operators
Dental Assistants
Dentists
Doctors
Engineers
Entertainers
Flight Attendants
Foresters
Geologists
Jewelers
Lawyers
Mechanics
Meteorologists
Nurses
Oceanographers
Police Officers
Plumbers
Pharmacists
Programmers
Secretaries
Shoe Repairpersons
Social Workers
School Counselors
Truck Drivers
Teachers
Telephone Operators
Train Workers
Veterinarians
Waiters or Waitresses
Service Station Attendants

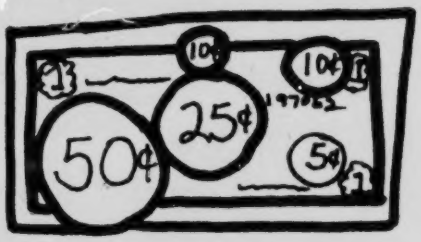
ECONOMICS

16. UNEMPLOYED

Have your students make up their own card game very similar to, "Old Maid." Ask the students to design cards showing workers as well as cards with a "tool of the trade." Follow the rules of "Old Maid." (The "Old Maid" card is designed as the "Unemployed" card.)

17. MONEY ISN'T EVERYTHING

What rewards, other than money, do people get from their work? Make a list. (e.g., pride, dignity, friendship, personal satisfaction, etc.) Discuss each reward. Have each student rank the rewards in order of importance to them, No. 1 being most important.



18. SURVEY

Using the survey on ACTIVITY PAGE 59 have your students compute the expected reactions of their families if they were employed at different types of work. Evaluation of children's decisions could be made to see how parents attitudes toward different jobs influenced their answers.

19. MOONLIGHTING?

Have your students find the term, "moonlighting" in the dictionary and discuss how it is a part of leisure time activity. Why do people moonlight? (e.g., money, secondary interests, etc.)

20. SUPPLY AND DEMAND

Review the concept of supply and demand by asking the children to think of times they have gone to the grocery store and found that the store did not have an item that they wanted. Discuss:

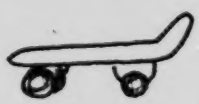
1. What did they do?
2. Why might the store not have had that particular item?
3. What would the store do if many people came in asking for the same item?
4. How does supply and demand affect the grocer?
5. How does supply and demand determine the kinds of jobs available to the worker?

Have the children dramatize the influence skate boards might have on the job market in the following hypothetical situation.

Many children go to the store to buy skate boards. The store owner orders many skate boards from the factory. The manufacturer hires many people to help make skate boards. Gradually, children grow tired of playing with skate boards and quit buying them. The store does not order any more from the manufacturer. As a result, the manufacturer quits making skate boards and tells the workers to find other jobs. The workers move to other cities to find jobs.

How does supply and demand determine the types of work available? How does the job market affect the worker's life?

Credit - #9



21. I LIKE TO WORK BECAUSE....

The children may divide into committees; each comittee is given a problem situation to discuss and dramatize. Examples of problems for committee consideration are:

1. Some people have plenty of money. They do not need to work. Why might they want to work anyway?
2. Some people have no money to buy what they need. They are told that they do not need to work because the welfare office will give them food and money. Why might they want to work instead of accepting assistance?

21. I LIKE TO WORK BECAUSE....(Cont'd)

3. Some people have several job offers. Each job pays the same amount of money. How would the workers choose one job over the others and why?

22. THE CONTRIBUTION CHAIN REACTION CYCLE

Have your students paint a mural depicting different ways in which the people in the community make contributions to the students. (e.g., a company makes a large profit on which it pays taxes to the government. The government gives part of the taxes to the school which in turn pays teachers, cooks, and janitors. The teachers, cooks, and janitors then help the students in different ways.) Volunteer groups and clubs may also be included in the mural.

TAXES

23. TAXES ARE GOOD

Have your students answer the following questions:

1. How do taxes help families buy services?
2. Do the taxes a family pays determine the goods and services they receive from the governmental agency collecting tax? Discuss.
3. Is it important that families cooperatively finance the school? Why?

Then, have your pupils prepare two mobiles from metal coat hangers. Hang many small colored cut outs of the goods/services which families buy on one hanger, (e.g., good roads, schools, teachers, police protection, etc.). On the other hanger, cut-out pieces of paper and label with various taxes, (e.g., income tax, fuel tax, real estate taxes, state taxes, etc.). Discuss how the cost of goods and services provided by the government should be balanced by the taxes collected.

24. JUST WHY IS COFFEE SO EXPENSIVE ANYWAY?

Many occupations depend on trade with other nations. Children can do research to find what products and occupations depend on international trade. If children have difficulty in this study, you may make suggestions such as:

1. What would happen if the U.S. refused to import foreign cars?
2. What would happen if there was a ban on Japanese cameras, binoculars, etc.?
3. If Venezuela stopped shipping oil to the U.S., would it make a difference to you and your family? How?
4. How would a devaluation of the American dollar affect the income of American workers overseas?
5. What effects would a consumer boycott have on employment in this country?
6. If the President would declare a wage and price freeze, what impact would this have on the workers in this country?

GOVERNMENT

25. QUIET, PLEASE!

Ask your students to develop a set of rules for the library. Discuss the need for each rule. Assign roles for the various people involved in the library. (e.g., students, librarian, librarian's assistant, media specialist, etc.) Practice enforcing and obeying the rules.

26. TEACHER'S PET GETS TO DO EVERYTHING FUN!

During the day, select one student who is intelligent, well-liked, nice looking, and well dressed; ask that person to do all the errands and special jobs, such as going to the board during math or spelling. (Make sure this student knows what you are doing and can handle the situation.) Keep on until the class begins to notice and starts resenting the "teacher's pet." Ask the class if these are normal

26. TEACHER'S PET GETS TO DO EVERYTHING FUN! (Cont'd)

emotions. How can emotions be controlled? What is the result of losing control when one is angry? How can anger be expressed acceptably? What is the result of uncontrolled jealously? How can it be expressed acceptably?

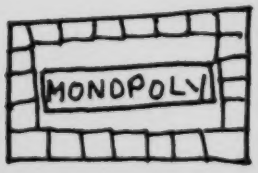
27. COOPERATION IS NEEDED

Have your students work together in small groups to draw an organizational chart of the school and its staff, placing each worker on the chart, (e.g., lunch room workers, teachers, the principal, custodians, bus drivers.).

Discuss how working together makes completion of the chart possible. What would the school be like if any worker did not work well with other workers?

28. WE NEED SOME DIRECTIONS

Bring a game that the majority of your students do not know how to play. Give the game to your students but do not give them any rules or directions. After they fumble with it for a few minutes stop and discuss what has happened. Give them the directions and have them play it again. Why are directions important? What kind of directions do we have in class? What kind of directions do your parents have in their jobs? If you don't know, ask them.



29. LAW AND ORDER IS NOT THE SAME TO ALL PEOPLE

Discuss what is right and wrong within the classroom and school setting and how the students feel about it. Discuss some of the laws within the community. How do the community members feel about these laws? Invite a lawyer or probation officer to discuss how law and order is kept in your community.

30. THAT IS NOT FUNNY

After discussing how rules facilitate work production, have each child create a cartoon illustrating some confusion that would follow if some work rule was disregarded, (e.g., somebody stacked pies on top of one another, somebody came late to work on an assembly line, somebody boxed three shoes in one box and only one in another, etc.).

31. WHAT ARE CIVIL RIGHTS?

Have your students discuss or write on the topic, "What Would Our Lives Be Like If We Did Not Have Civil Rights?"

Students could research laws and agencies for equal employment, right to work laws, etc. Minority groups (especially blacks) have long been employed in the field of sports and entertainment. Discuss with students the opening of new job opportunities in other fields. Discuss TITLE IX. What impact does it have on you as a student?

Credit - #5

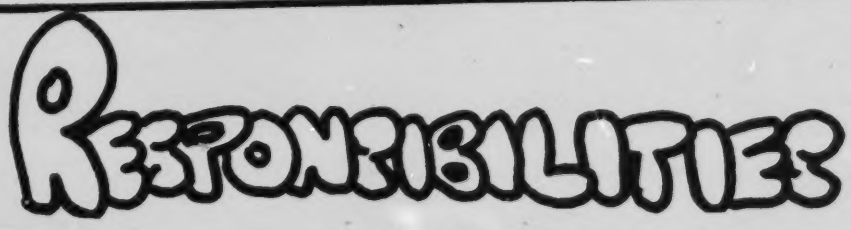
32. WHAT IS RESPONSIBILITY ANYWAY?

Initiate a class discussion about:

1. What workers do you, as students, depend upon each day?
2. How do other people depend upon you as pupils?
3. What developments would occur if no one assumed responsibility?
4. What is the importance of accepting responsibility?
5. How can one's responsibility for the community and nation affect pollution, our nation's government, etc.?
6. In what ways can pupils assume responsibility for their school and home?
7. In what ways do responsibilities increase with physical and mental growth?

As an added activity take a class poll.

Who is responsible for:	ME	SOMEBODY ELSE
Getting you up in the morning?		
Fixing your breakfast?		
Picking the clothes you wear?		
Getting you to school on time?		
Your not disturbing other students in class?		
Doing your homework?		
Settling arguments you get into?		
Eating the right foods?		
Being home on time?		
Cleaning your room?		
Taking care of your brothers and sisters?		
Taking care of your pet?		



32. WHAT IS RESPONSIBILITY ANYWAY? (Cont'd)

Discuss or reproduce the chart and give to each student to check (✓) for themselves. Have them write comments about what they like to be responsible for.

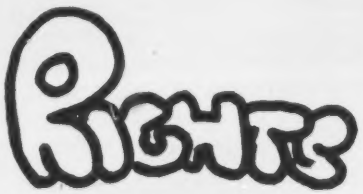
33. RIGHTS CARRY WITH THEM RESPONSIBILITIES

Ask your students to make a list of the rights and responsibilities of each pupil in your school.

Examples:

RIGHTS	RESPONSIBILITIES
1. To learn	1. To study
2. To be respected	2. To be courteous
3. To be treated fairly	3. To be punctual

What is the difference between the two terms, "rights" and "responsibilities"? How do they work together?



34. I'M "IN" TODAY

Divide your class into two groups, the "IN" group and the "OUT" group. Identify the groups in some way with special tags or buttons. On the first day, the "IN" group is treated with respect by both yourself and your students. They are to receive individual help and priority treatment in all aspects of the school day. Do not lavish them with ridiculous praise but treat them with deference. The "OUT" group, on the first day, is ignored and disregarded; however, they are not treated rudely. Their needs and wants merely are not of any concern to yourself or the other students.

On the second day, switch groups, the "OUTS" are now the "INS" and the "INS" are the "OUTS".

The next day discuss as a group:

34. I'M "IN" TODAY (Cont'd)

1. How does it feel to be disregarded?
2. How does it feel to be treated with respect?
3. How did you want to respond when you were disregarded?
4. Was the rest of the class really successful in robbing you of your dignity or did you still feel dignified inside?
5. How is your treatment of each other as "INS" and "OUTS" similar to the way you treat each other each day?
6. How did you feel about yourself when you were denying respect to the "OUTS?"
7. How can ignoring others without displaying any noticeable disrespect be degrading?

As an added activity have each student find out one good thing about someone they usually ignore. This could be an interest, a talent, or a feeling that causes them to have a greater respect for the dignity of that individual. Have them share their experiences.

35. YOU THINK YOU HAVE PROBLEMS!

Have two panels (one to represent the defense and the other the plaintiff). These students will discuss solutions to real community problems. If your community is free of problems perhaps some of the following imaginary problems could be debated:

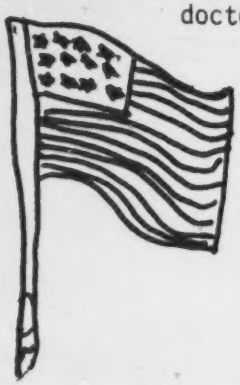
1. You work in a tannery which is contributing considerable pollution to the river, causing a large amount of fish to be killed and a decline in recreation.
2. You represent a group of concerned citizens who oppose the opening of a new multi-million dollar race track.
3. You are part of large group of lumberjacks who are cutting a large tract of timber. As a result of the cutting, major floods are occurring and wild life is being destroyed.
4. You are applying for a job in which the employer is of a different political party. You are encouraged to vote for your employer's party candidate because it would increase work at the factory.
5. You are working for a construction company which will not hire persons from minority groups.

Credit - #5

36. FORMS OF GOVERNMENT INFLUENCE WORK

To teach that work and jobs differ according to differences in government, culture and environment:

1. Discuss the democractic and socialistic forms of government.
2. Discuss the governments of the United States and a socialist country.
3. Contrast the life of a farmer, factory worker, teacher, and doctor in the United States and a socialist country.



37. CAPTAIN JOHN SMITH SAID SO

After your students read about early settlers, especially Captain John Smith, ask them why they think he made it imperative that every man in that new colony work in order to eat. Ask these and other questions:

1. Was Captain John Smith fair in his demands?
2. What jobs were available and necessary in the early Jamestown colony?
3. What would have happened if everyone had refused to work?
4. What was the role of women in the new colony?

38. MY GREAT GRANDFATHER USED THIS KNIFE TO WHITTLE KINDLING

Invite members of the local historical society to inform the children how objects, implements, and historical sites are restored and the kinds of research involved in these projects. Visit some historical site in your area. Then collect objects and write a description about each one. Make an exhibit of all the objects and invite classes

38. MY GREAT GRANDFATHER USED THIS KNIFE TO WHITTLE KINDLING (Cont'd)

to come to your museum. Objects collected do not need to be antiques but they should be out-of-the-ordinary or out-dated objects. Several students might be museum curators and explain to visitors how the museum is organized.

39. THIS IS THE WAY WE DID IT

Divide the class into two groups. Have one group represent the colonial period and one modern day. Take turns having the groups draw from the following cards:

1. Heating the home
2. Making soap
3. Lighting the home
4. Processing vegetables
5. Making clothing
6. Preserving fruit
7. Constructing bedding
8. Preserving meat
9. Carpentry methods
10. Making shoes
11. Providing education
12. Transportation methods
13. Available books and newspapers
14. Making bread
15. Farming methods

Have the one group who drew the first card go first. Discuss how each task was done by starting out, "YEARS AGO WE _____ but TODAY WE _____." Discuss the changes and how each has made a contribution to society. As an added activity have the students draw time lines showing how each has changed since colonial days.

40. COLONIAL LIVING

To help students become aware of the team work practiced by early settlers and to show how cooperation is essential when working on a team project, discuss some of the reasons colonists had to work together (e.g., lack of skills, shortage of labor).

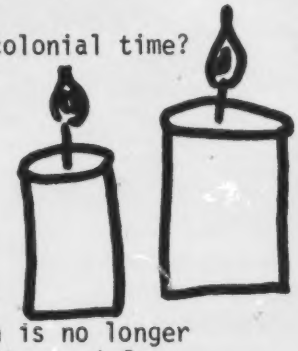
Then divide the class into five teams and have each team choose a type of colonial work that they would like to research. Some of these types of work might be candle-making, bread-making, horse-shoeing, barn-

40. COLONIAL LIVING (Cont'd)

raising, making maple syrup, planting, harvesting, hunting, and quilting. Each team would find information pertaining to that job, figure out a plan for work, and show the various tasks involved in that project. They might want to tell how certain members of their team would be working on one phase of work while a couple of others would work on a different task at hand. They would want to include the materials and tools needed to complete the job. After a team has completed its project, have each member give a report orally. Some questions for discussion after the reports have been given might be:

1. Which of these jobs might seem more like fun than work?
2. Which ones would the colonial women do?
3. Which would the men do?
4. Would team work be fun?
5. What are some advantages of working as a team?

How has the work role of women and men changed since colonial time?



41. OUT WITH THE OLD

Ask each of your students to bring in an article which is no longer sold in stores. Talk about the people who made each item and for what it was used. Why is it not used today?

42. TECHNOLOGY HAS CHANGED WORK

Demonstrate how technology has improved tools and made work easier by using the idea of beating an egg white with:

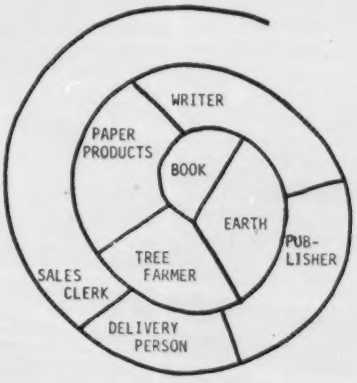
1. A fork
2. A whisk
3. A rotary beater
4. An electric mixer

42. TECHNOLOGY HAS CHANGED WORK (Cont'd)

Have the students list other household tools that have made work easier. How have these tools changed over the years? Do the newer tools waste energy or save energy?

43. JOB WHEEL

Have your students make wheels tracing back as far as they can the people and things involved in the production of things they use every day. Put on a spiral, cut on curves and suspend as a mobile.



What part do these people and things play in the production of the product?

44. IN THE YEAR 2025 I MIGHT LIVE IN A BUBBLE!

Have your students draw an outline of a house built in the colonial days. Then have them draw a house of the future, 2025. Since many technological advancements will occur in 48 years, your students may have to do some speculative thinking before starting their "home of the future." After they make a model depicting the future technological developments, an oral presentation showing their

44. IN THE YEAR 2025 I MIGHT LIVE IN A BUBBLE! (Cont'd)

homes might include how progressive developments would affect their work and leisure time.

SOCIAL SCIENCE

45. I CAN CHANGE THAT

Develop a series of cards with descriptive words (e.g., short, tall, neat, chubby, careless, forgetful). Have the children divide the cards into two piles, those with descriptions that apply to them, and those that do not. Then take the pile of cards that apply and divide them into two piles, strengths and limitations. Taking the limitations, divide this group into two piles, those that cannot be changed, and those that can be changed. Discuss why they sorted the cards the way they did. Have them make a list of the characteristics they feel can be changed. Discuss how they can go about changing those characteristics. Help them set goals for improvement. Keep a personal profile on each student to review periodically.

46. OCCUPATION TREE

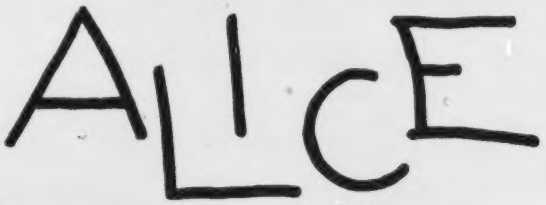
Ask each of your students to choose a job in which they might be interested. Use that job as the trunk of a tree. Have them make branches showing tools and equipment or other jobs that have grown from the trunk.

47. 25 YEARS FROM NOW

To get your students to think of themselves in the future have them complete ACTIVITY PAGE 61. Are their answers realistic? How do they see themselves?

48. THIS SOUNDS LIKE ALICE

Ask your students to list 5 of their favorite out-of-school activities. They are not to put their names on the lists. Collect the lists, put them in a box and have each student pick one. That student is to write a description of the person from the information on the list. Return the lists to the original authors to illustrate how the signals we send are intrepreted by others.



49. LET'S SEE NOW....

Have your pupils list 3 of their abilities and 3 of their interests. Have them name one occupation that corresponds with each ability or interest. Are the occupations similar? How? Do they differ? How? Why is it important to know your abilities and interests before considering an occupational field?

50. I KNOW MY ABILITIES

Show your students pictures of four different individuals approximately the same age as the class. Relate the following description as you hold up the pictures:

1. Sally is great in science and brings home A's on her report card nearly every six weeks.
2. John has artistic ability which enables him to sketch, draw,

50. I KNOW MY ABILITIES (Cont'd)

and paint pictures that everyone enjoys.
3. Sarah is the captain of the basketball team and has a dead eye for the basket.
4. Sam is one of the best-liked boys in school. He is friendly to everyone.

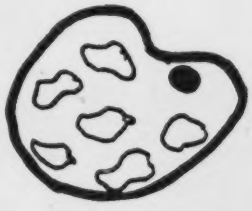
Discuss:

1. What abilities do John, Sally, Sam, and Sarah have?
2. Why are there many types of abilities? (You may need to point out that sometimes people think there is only one kind of ability, mental ability, but that there are actually many kinds of abilities. To illustrate pick out one ability of each of your students, keeping in mind those listed below.)
3. Why is it important to know your abilities?

Have each student list their abilities. Discuss with each one personally.

Types of abilities:

1. Writing ability
2. Mental ability
3. Scientific ability
4. Artistic ability
5. Physical ability
6. Manual dexterity
7. Clerical ability
8. Musical ability
9. Creative ability
10. Persuasive ability



51. I COULDN'T DO THAT

To show why some jobs are restricted to some people, start making a chart at the beginning of the year and continue throughout the year.

JOB	WHO COULD DO THIS	WHO COULD NOT DO THIS
Model	Attractive, tall, thin	Someone short, chubby
Truck Driver	Likes to drive, good driver, good eyesight and hearing	Somebody who cannot sit for long periods of time

51. I COULDN'T DO THAT (Cont'd)

JOB	WHO COULD DO THIS	WHO COULD NOT DO THIS
Telephone Operator	Can sit for long hours, courteous, nice voice	Someone with an irritating voice, someone who is impatient
Construction Worker	Likes being in hot and cold weather, physically strong	Someone with a bad back, someone who sunburns easily.
Pilot	Someone responsible and well-trained	Someone who is always late, someone with poor hearing

52. WHAT AM I

Have each student choose a product to illustrate. After they have discovered the materials used and the process involved in making the product, have each child describe how it was made and what materials were used without telling what it is. The rest of the class is to guess what it is. The person who guesses the correct answer gets a point. Keep track until each child has demonstrated a product. See who has the most correct guesses.

53. LET'S EXCHANGE

Arrange with another school in your district to exchange two or three students for the purpose of examining the different types of employment found in each school's area. To make this a successful project, the two exchange schools should be in different cultural, geographical or socio-economic areas. Before visiting the other school, the children should prepare some type of questionnaire for the purpose of interviewing or surveying. If possible, have the exchange students from both schools develop the same questionnaire so that after the data is collected they can jointly summarize the results.

54. THIS JOB REQUIRES EXPERIENCE!

Have each child bring a newspaper to school, or over a period of time you may have collected enough so that each child will have one. It would be best if the newspapers have different dates or are from other towns.

PROCEDURE:

Have the children turn to the Want Ad section of the paper. Together discuss this section. Have the children notice the different descriptions for available jobs. Discuss terms such as skilled and unskilled labor, experienced or inexperienced labor, etc. Have them each look at a particular section and analyze the available jobs. List in columns the jobs that call for experience, those that need special training or college, and those for unskilled inexperienced workers. If the job ad gives hours or salary, write them down. Discuss the findings and record them on a large piece of tagboard in chart form. What types of jobs call for experience? What types call for special training or college? What types are available for unskilled people? How do the salaries compare?

As an extension:

Have each child choose one of the jobs discussed and write an imaginary letter of application for that job. Make sure they include their qualifications and any previous experience they may have had.

Wanted...

55. UNSCRAMBLE THE WORKERS

For career awareness have your students unscramble the names of workers on ACTIVITY PAGE 63. What are the duties of these workers? Where do they work? Do they need special training or education?

KEY

1. JANITOR
2. DOCTOR
3. CONSTRUCTION WORKER
4. COOK
5. LAWYER
6. BAKER
7. SALESPERSON
8. SINGER
9. BARBER
10. TEACHER

56. NEW INDUSTRY MEANS MORE JOBS

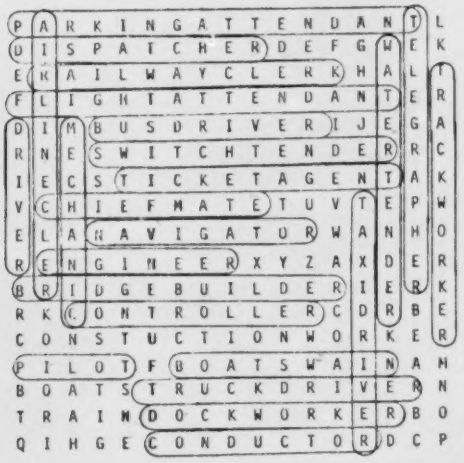
Initiate a class discussion dealing with the idea that facts about an industry are necessary for understanding occupations within the industry such as:

1. Why does an industry get started?
2. Why does an industry locate in a particular area?
3. Why does a community investigate an industry before bringing it into the community?
4. Do all new industries make available different types of jobs?
5. Does industry contribute to a better life in a community?
6. Does one hundred new jobs mean many good things to a community?

57. TRANSPORTATION SCRAMBLE

After your students have completed the puzzle on ACTIVITY PAGE 65, talk about the duties of each of the transportation occupations found in the puzzle. Talk about the advantages and disadvantages of each of these occupations.

KEY

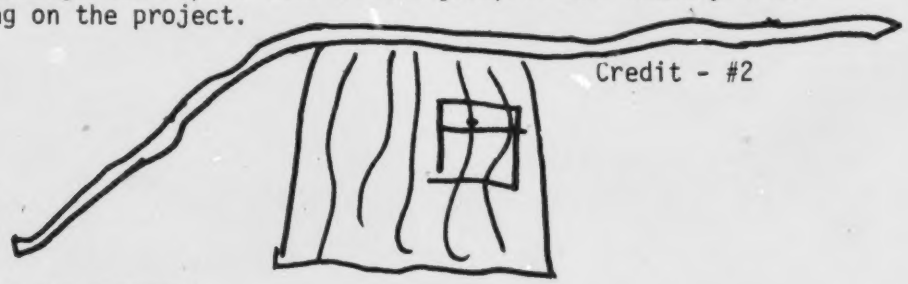


58. I PAINTED THOSE TIRES

Select a variety of work settings or projects around the school and arrange for each student, or pairs of students, to spend an hour of class time each day for a week or longer in that particular work role. Arrange for a resource person to meet with the student for job orientation and instructions prior to the experience. As much as possible, students should have the opportunity to select the kind of job they would like to have. Think not only in terms of assistant-type jobs, but also those jobs that are not done because of lack of time or staff. Even the smallest schools could supply work stations like:

1. Clerical assistants to office and teachers
2. One-to-one reading tutors for primary grades
3. Grounds maintenance and improvement
4. Construction and installation of playground equipment (e.g., brightly painted old tires buried in the ground side-by-side at different levels fascinate small children as something to run on)
5. Interior decorating (paintings, bulletin boards, wall murals, curtains to brighten some spot in the building)
6. Learning games, tools, blocks, art aprons for smaller children (check with libraries, teaching magazines, and primary teachers for ideas and instructions)
7. Building maintenance
8. Physical education assistants for primary grades
9. Repair shop for primary classroom toys, games, equipment, and furniture

Students should keep brief daily logs of their experiences, tasks, and feelings and report back to the group at the summary class meeting on the project.



Credit - #2

59. "BEHIND THE SCENES"

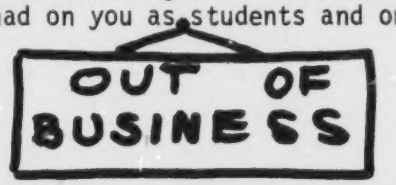
Have your students name occupations of people who help the community each day. Discuss causes and effects of their being disregarded by others. You might include occupations such as: sanitation crews, service station attendants, waiters and waitresses, dishwashers, plumbers, dog catcher, mechanics, teachers, lawyers, etc.

60. COMMUNITY PROBLEMS

Have your students discuss various problems in the school or the community, (e.g., safety programs, omission of art or music programs, omission of athletics, etc.). Decide on one problem to research. Develop questionnaires, run the survey, compute the outcome, and report the findings. (This survey might provide information for an interesting news article for your community.)

61. CLOSED

Take your students on a field trip to a factory which has been shut down or is laying off people. Discuss why the factory has been closed, and how it might be affecting our nation's economy. What affect has its closing had on you as students and on your community?



62. ILLINOIS (OR APPROPRIATE STATE NAME) PUZZLE

Have your students work in pairs to complete ACTIVITY PAGE 67. After they have completed the activity see how many different items you have for each letter in the word, "ILLINOIS."

63. MY MOTHER USED TO HAVE A DIFFERENT JOB

Have the pupils interview a worker to determine the kinds of occupations in which this person has been involved. Have the pupils ask the reasons for the individual's job changes. If possible, send the children out armed with cameras and cassette tape recorders. How proud they will be to have the rest of the class see "their" worker on film and hear "their" voices on tape.

Initiate a class discussion about the following questions:

1. Why is it important to prepare for more than one occupation?
2. Why do changing conditions require retraining for new jobs?

64. MASS PRODUCTION

Form an assembly line to mass-produce a product in the classroom (e.g., milk carton mailboxes, frozen orange juice can candles, construction paper games). Assign each person a specific task in the line. Create some problems by pulling out a worker (illness, absenteeism), or by asking one worker to go faster or slower than necessary. Discuss what happens. Talk about creativity and self-satisfaction in connection with assembly line work.

65. IN ILLINOIS WE HAVE FIVE GROUPS OF OCCUPATIONS

Introduce the broad groups of occupations as listed by Illinois Office of Education and explain briefly what is included and meant by each of the five groups. *(See list page 48) The class may divide into five groups, each committee using one of the five groups as a basis for developing job families. The committees may include locally found occupations as well as those outside of the immediate community. Atypical as well as typical occupations should be considered. The committees may use newspapers, the yellow pages of the phone book, reference materials from the library, and interviews of workers as a basis for determining which occupations should be included. The efforts of the committees can be compiled into a job families booklet.

65. IN ILLINOIS WE HAVE FIVE GROUPS OF OCCUPATIONS (Cont'd)

Each job family grouping should describe the characteristics common to the jobs which are included.

STATE OF ILLINOIS FIVE CLUSTERS OF OCCUPATIONS

1. Applied Biological and Agricultural Occupations
2. Business, Marketing, and Management Occupations
3. Health Occupations
4. Industrial Oriented Occupations
5. Personal and Public Service Occupations

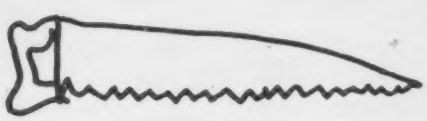
*For reference see State of Illinois, Department of Adult, Vocational, and Technical Education, Bulletin No. 5-1071, "Vocational and Technical Education Descriptions, Definitions, and O.E. Coding."

66. CLASS, WE HAVE A PROBLEM

"Class, the town has just donated a piece of land and we are faced with the task of building and operating an elementary school on it. We can use workers from just five different occupations for both the building and operation of the school. Which five do you think we need the most?" Give your students several minutes to decide upon and defend their choices. What workers were not considered essential but still make a contribution to the school? How do they add to its successful operation?

Similar problems might be:

1. A meeting to decide which ten workers should receive priority when filling a bomb shelter with people who will rebuild the world after a nuclear war.
2. A wagon train of twenty pioneers deciding what workers are needed in their new town.
3. A selection committee to present awards on Labor Day to the ten workers who best represent the town.



67. THIS IS THE WAY IT HAPPENED

Pre-record the facts about a hit and run accident.

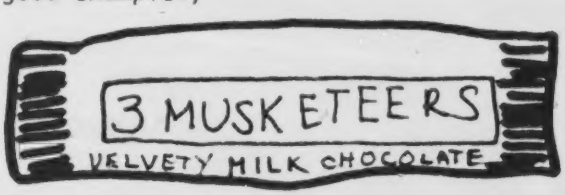
1. Have the children file correct police report forms.
2. Map out the accident scene. Map the possible route taken by the driver, the victim, the police, the witnesses.
3. Go outside and chalk out the point of impact, locate the "evidence."
4. Write a profile or description of all the people involved.
5. Bring in newspaper clippings of an accident or crime.

List all the workers who are involved in some way after an accident occurs.

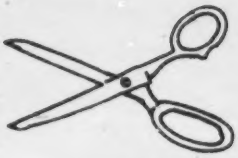
Credit - #13

68. WE MAKE THIS RIGHT HERE IN TOWN

Have your students bring a product to school that is manufactured locally. Trace the product from the raw materials through the manufacturer or producer to the retail clerk. Draw a chart on the board to show all the people who have handled either the raw materials or the product itself in order to make it available to customers. (Do not forget the container.) Decide which of these people are independent, dependent, and interdependent in relation to the others in the diagram. Contrast this with how the same product might have been produced, distributed, and sold a number of years ago. Technology has increased the number of interdependent relationships in producing a project. How has this caused an increase in the costs of products? (Milk would be a good example.)

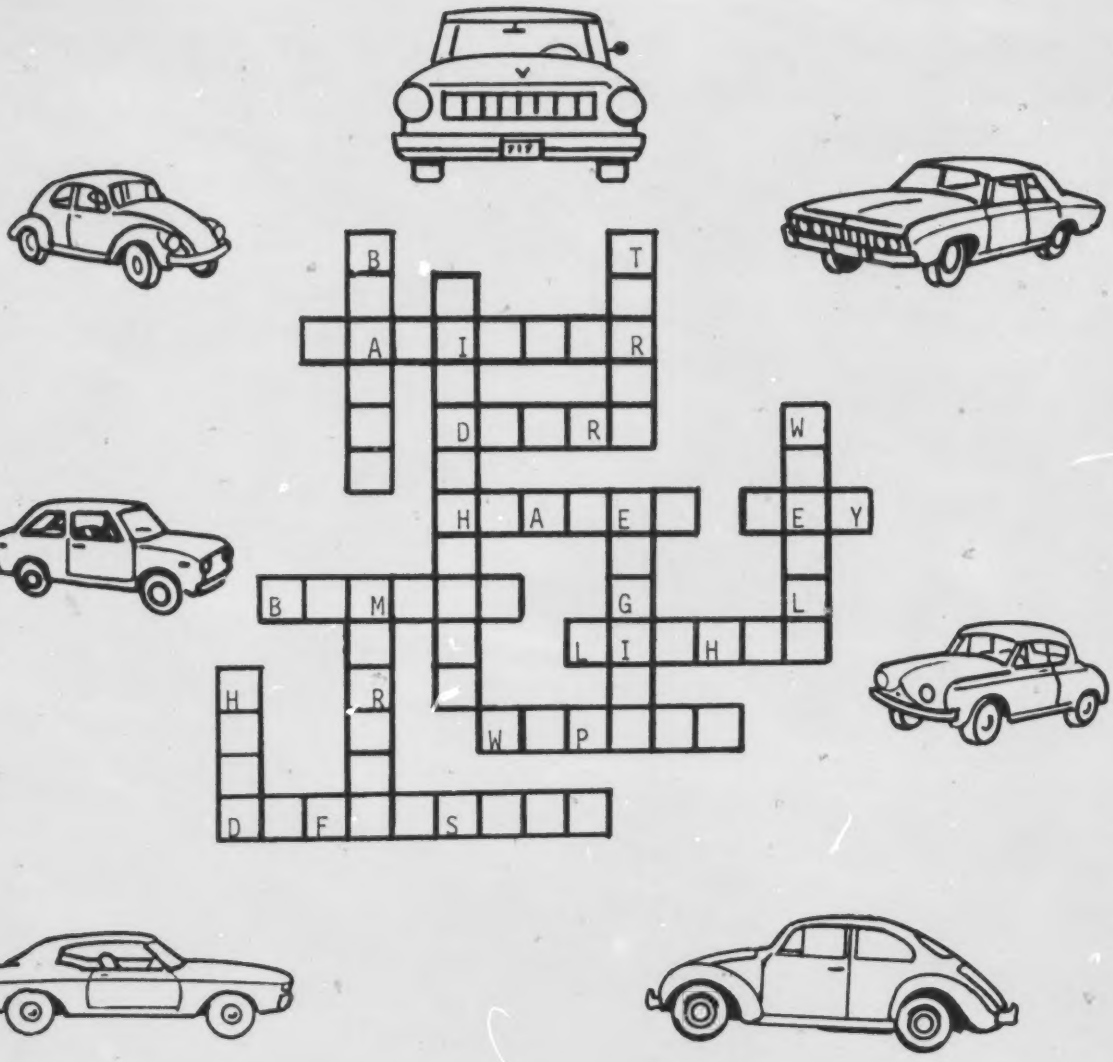


ACTIVITY PAGE



Equipment	Name a Worker or Workers who use this equipment	Name a person who depends on these workers
1. Tractor		
2. Plow		
3. Cash Register		
4. Typewriter		
5. Airplane		
6. Refrigerated Truck		
7. Sawmill		
8. Vase		
9. Scissors		
10. Scale		
11. Shampoo		
12. Train		
13. Camera		
14. Hammer		
15. Broom		
16. Paint Brush		
17. Sewing Machine		
18. Pots & Pans		
19. X-ray Machine		
20. Boat		

ACTIVITY PAGE



Think about the parts of a car. Fill in the blanks with words naming parts of a car both inside the car and outside.

ACTIVITY PAGE

DIRECTIONS: Using the map on the next page, write the directions, step-by-step. Use directions, street names and landmarks to help.

John's sister has just asked him to take her coat to the cleaners. John does not know his way to the cleaners from his house. Please direct him.

Alice is having a party. Pete and Sue do not know how to get to her house. Please help her give directions to her two friends.

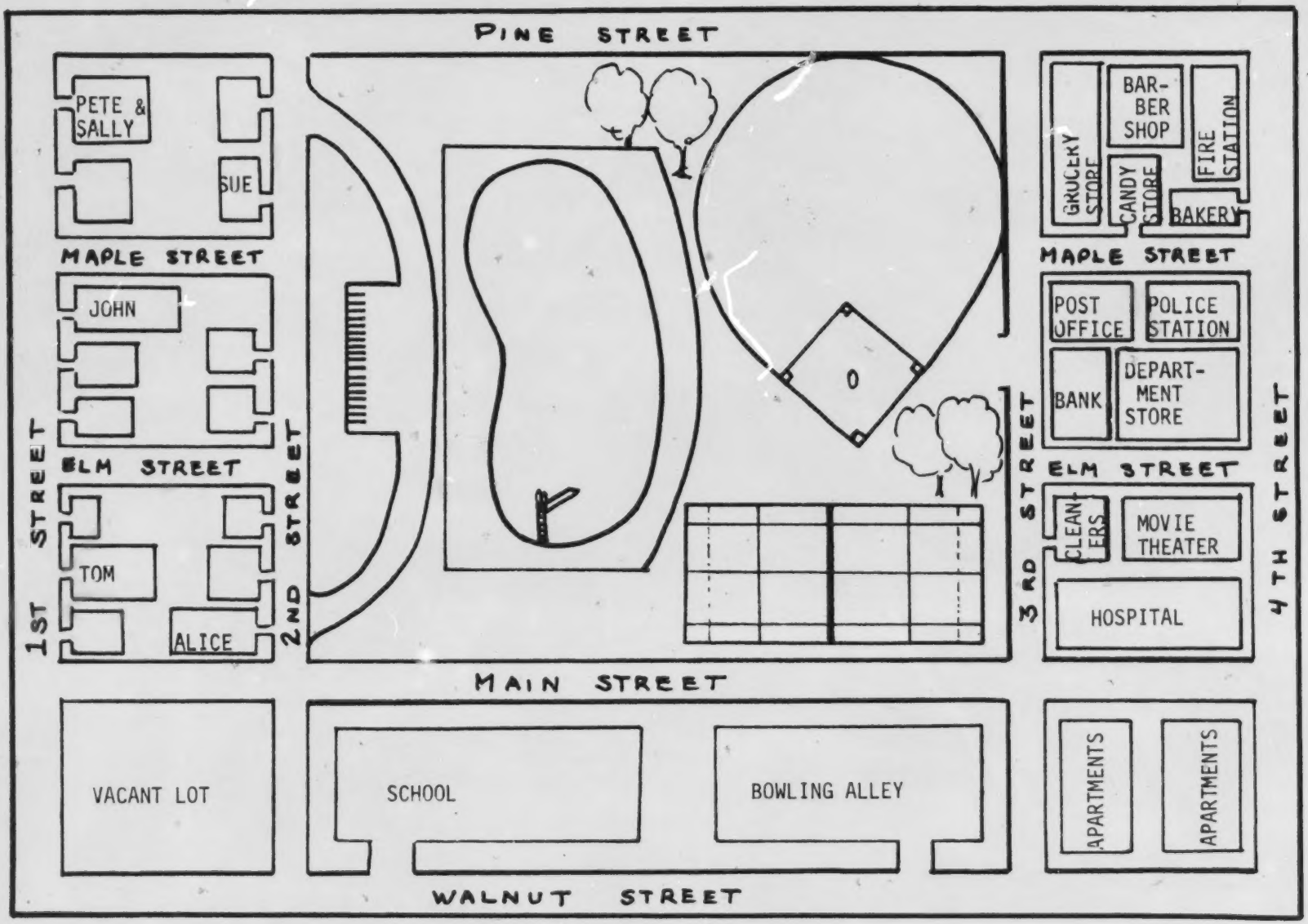
Tom wants to buy some donuts. His mother said he could ride his bike to the bakery if he did not ride on the busy streets which are 2nd Street, 3rd Street, and Main Street. Direct Tom to the bakery. Remember, he cannot ride his bike on 2nd Street, 3rd Street, or Main Street.

Sarah has just moved into the apartments. Sue has invited her to play on her softball team after school. Help Sue direct Sarah from school to the softball diamond in the park.

Pete and Sally want to get some candy at the candy store before they go bowling. Direct them from their house to the candy store, to the bowling alley and back home again. They are not allowed to go on 3rd or Main Street as they are busy streets.

ACTIVITY PAGE

N



W E

61 S 62

ACTIVITY PAGE

How do you think your parents would feel if you worked on each of the following:

Job Worker	Pleased	Displeased
1. Working on a farm.		
2. Working as a janitor in a school.		
3. Operating an elevator.		
4. Typing in an office.		
5. Delivering messages.		
6. Working in a library.		
7. Working in a clothing factory.		
8. Working on road construction.		
9. Catching fish on a boat.		
10. Preparing food in a restaurant.		
11. Cutting meat.		
12. Washing dishes.		
13. Waiting on tables.		
14. Cutting lumber.		
15. Building houses.		
16. Laying brick.		
17. Being a nurses' aide.		
18. Cleaning people's homes.		
19. Working in a barber or beauty shop.		
20. Delivering newspapers.		
21. Collecting garbage.		
22. Working in a gas station.		
23. Teaching school.		
24. Selling items in a store.		
25. Flying an airplane.		

ACTIVITY PAGE

25 YEARS FROM NOW

25 years from now is a long time away but you will still be you. What will you look like? How tall will you be? _____ How heavy will you be? _____ What color will your eyes be? _____

Draw a picture of yourself as you think you will look in 25 years?

What kind of work do you want to be doing in 25 years?

What kind of training will be necessary for that job?

Where would you like to live in 25 years?

What will your lifestyle be like?

What kind of things would you like to do during your leisure time 25 years from now?

ACTIVITY PAGE

Unscramble the letters to spell the names of workers.

1. TRNJIOA _ _ _ I _ _ _

2. CTDORO _ O _ _ _ _

3. STTNCNRUCIOO RREWKO

_ _ _ _ T _ _ _ _ _ _ _ _ _ _ _ _ _ _ E _ _

4. KOCO _ _ O _

5. YALWRE _ _ W _ _ _

6. RAKEB _ _ K _ _

7. SRNPSSOEALE _ _ L _ _ _ _ _ _ _ _

8. RNIGSE _ _ N _ _ _

9. BRARBE _ _ _ _ E _

10. HCEETRA _ E _ _ _ _ _

SOCIAL STUDIES
SPRINGBOARD NO. 55

ACTIVITY PAGE

TRANSPORTATION

DIRECTIONS:

In the puzzle below there are the names of 24 transportation occupations. Can you find them all?

P A R K I N G A T T E N D A N T L
D I S P A T C H E R D E F G W E K
E R A I L W A Y C L E R K H A L T
F L I G H T A T T E N D A N T E R
D I M B U S D R I V E R I J E G A
R N E S W I T C H T E N D E R R C
I E C S T I C K E T A G E N T A K
V C H I E F M A T E T U V T E P W
E L A N A V I G A T O R W A N H O
R E N G I N E E R X Y Z A X D E R
B R I D G E B U I L D E R I E R K
R K C O N T R O L L E R C D R B E
C O N S T U C T I O N W O R K E R
P I L O T F B O A T S W A I N A M
B O A T S T R U C K D R I V E R N
T R A I N D O C K W O R K E R B O
Q I H G E C O N D U C T O R D C P

TRANSPORTATION OCCUPATIONS

SOCIAL STUDIES
SPRINGBOARD NO. 57

ACTIVITY PAGE

ILLINOIS FILL-IN PUZZLE

Work in pairs to fill in the five items beginning with each letter. (If you do not live in Illinois, fill in the name of your state.)

ITEMS

	City	County	Occupation	Product	Tool Used
I					
L					
L					
L					
I					
N					
O					
I					
S					

LANGUAGE ARTS
SPRINGBOARDS

CREATIVE AND CRITICAL THINKING

1. CANNING CAREER NOUNS AND ADJECTIVES

   Have a number of cans with a picture of a person in an occupation glued to the outside of each can. Prepare a list of numerous skills, tools (nouns), and characteristics (adjectives) of these occupations and write them on pieces of paper. Have small groups of children decide in which can characteristics belong. Or have the children write skills needed, tools required, and characteristics of the job pictured and place them in the proper can. Discussion should follow concerning the pieces of paper found in each can. Common characteristics, common tools, and common skills, as well as differences, should be discussed.

2. BASKETBALLS, A POOL TABLE, LOTS OF BATS AND BALLS...

   Suggest the following situation for your students and have them record their observations on paper.

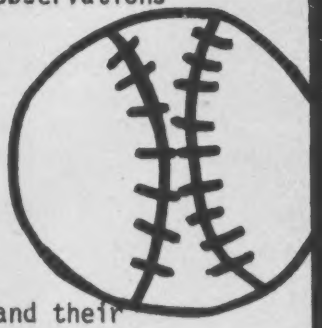
   Spend some time looking around your home.

   1. What things do you see that tell about the things your family likes to do for leisure?
   2. Look at your room. What do you see there that might tell others specifically about you?
   3. What items around your home indicate what interests your father, mother, sisters, and brothers have?
   4. How are your interests different from your parents? How are they alike? How are you alike and different in your

2. BASKETBALLS, A POOL TABLE, LOTS OF BATS AND BALLS.... (Cont'd)

interests from your brothers and sisters?

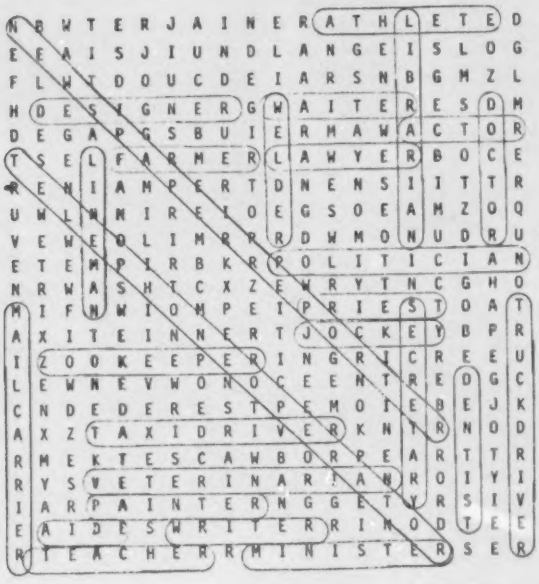
Ask someone else in the family to check your written observations; compare. Report back to the class orally as to how the observations were alike and different.



3. OCCUPATION PUZZLE

Use the puzzle on ACTIVITY PAGE 95 to help students expand their knowledge of occupational names. This list could also be used for spelling words.

KEY



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4. "A" IS FOR ARTISTIC, AGILE, OR AUTOCRATIC

Have your students make an occupational alphabet story book with illustrations. Or make a personal abilities alphabet, (e.g., I am artistic; I am brave; I am clever; etc.). You might want to expand the alphabet to include an occupation (e.g., I am artistic, so is a chef; I am brave, so is an animal trainer; I am clever, so is my mom, etc.). Or make an appreciations alphabet, things you like to do, places you like to go, etc.

5. NAME 3 JOBS

After your students complete ACTIVITY PAGE 97 discuss the differences in the answers. This activity will help expand students' knowledge of career awareness.

6. SPELLING ASSEMBLY LINE

Divide the class into two groups. Hand out one set of all the letters of the alphabet to each group. Members of each group will distribute the letters among their group members. Some members may have 2 or 3 letters. The two teams will organize themselves on opposite sides of the room and will compete in spelling words as the teacher calls out the words. The team that lines up first spelling the word correctly, earns points for that word. All letters of the alphabet have been used to insure total participation.

WORDS

Group (5 points)	Whisper (10)	Game (5)
Join (5)	Chalk (5)	Thank you (15)
Friend (10)	Learn (5)	Talking (10)
Neat (5)	Behavior (10)	
Equals (5)	Zip (5)	

How do people have to work together to complete a task successfully? What happens when people do not do the job that is expected of them?

6. SPELLING ASSEMBLY LINE (Cont'd)

How does this make the rest of the group feel? Supportive? Let down?

7. MATCH THE WORKER WITH THE TOOL

ACTIVITY PAGE 99 will help your students become aware of the tools used in particular occupations and some jobs that are dangerous. Discuss: Would you be able to work in the occupations that require your going to dangerous places or doing dangerous things?

KEY

WORKERS

a. 5
b. 3
c. 7
d. 9
e. 1
f. 4
g. 10
h. 2
i. 6
j. 8

JOBS

a. 2
b. 5
c. 10
d. 7
e. 8
f. 1
g. 4
h. 6
i. 9
j. 3

8. THAT'S NOT MY JOB!

Hand out to each student a sheet of paper with the following phrases written on it. Each student is to fill in at least three things that the person mentioned does.

Mother is responsible for:
Father is responsible for:
I am responsible for:
My younger brother or sister is responsible for:
My older brother or sister is responsible for:
My best friend is responsible for:
We all help with:

Make a composite list on the board. Why are some things expected of some people? How does age and experience make a difference?

9. ILLINOIS JOB FAMILIES

Have your students complete ACTIVITY PAGE 101 to identify occupations that fall under the 5 occupational clusters (families) identified by the Department of Adult, Vocational, and Technical Education, Illinois Office of Education. Why do these occupations fall within these clusters? What other occupations would fall in the 5 categories?

KEY

AGRICULTURAL	BUSINESS	HEALTH	INDUSTRIAL	PERSONAL AND PUBLIC SERVICES
Chicken Grower	Secretary	Doctor	Automobile Mechanic	Minister
Farmer	Bank Teller	Dentist	Welder	Teacher
Apple Grower	Store Owner	Dentist's Assistant	Miner	Actor
Forest Ranger	Clerk	X-Ray Technician	Carpenter	Musician
Christmas Tree Grower	Bookkeeper	Dietician	Engineer	Cab Driver

10. A MAN AS A NURSE: A WOMAN AS A TRUCK DRIVER? OF COURSE! WHY NOT?

Divide your students into groups. Have each group think of at least 5 jobs that are typically labeled, "jobs for men" and 5 jobs that are typically labeled, "jobs for women." Have them decide if categorizing in these ways are correct assumptions to make. Report back to the class. Discuss male/female stereotyping problems. Whose responsibility is it to change society's feelings?

11. WHERE CAN IT BE FOUND?

Make a set of cards which are in the shape of cans. On each card, write for example, "It can be found at the doctor's office." Have 10-12 cans with places identified. Give the students a list of vocabulary words dealing with workers and tools corresponding with the places you have identified, (words such as, ether, stethoscope, hippodrome, hypodermic, etc.). Include 10 or 12 items from each set. The basic idea here is vocabulary development as well as use of dictionary skills. Some of the possible answers should be vague and allow the students the opportunity to form opinions and support them.

12. AN INFORMAL INVENTORY TELLS A STORY

Use an informal inventory (See ACTIVITY PAGE 103) to help students verbalize their feelings as well as to give you, the teacher, further understandings about the student. Keep the inventory on file. Give the same inventory or a similar one at a later time and compare the responses. Discuss each student's individual responses with him or her.

13. THE MAGIC BASKET IS HERE

People's values differ. To show students how values differ, tell them about the Magic Basket. It can be very large or very small. It can have anything in it that they want, even things they cannot see. Have the students write about the five things they want in the magic basket and why they want those things. The five things might include:

1. One thing they want for themselves.
2. One thing they want for their families.
3. One thing they want for their town.
4. One thing they want for the world.
5. Anything else they want.

Why do they want these things? How do values differ? How do values make a difference in what is gained, individually and in a group? How do these differences affect people on the job?

14. SENTENCE PUZZLE

Give each student the puzzle pieces from ACTIVITY PAGE 105. Have a contest to see who can complete all the sentences correctly first.

15. DEVELOPING A CAREER KIT IS FUN

Using small boxes collect items illustrating particular jobs in which younger children are interested. Include in the box the following items:

1. An actual taped interview with an employee on the job.
2. Three activities, including puzzles and games, for individuals or small groups to do which will increase their awareness of that job.
3. Software such as tools used on the job, pamphlets, maps, cartoons, pictures, graphs, charts and diagrams.
4. A list of job terms as well as vocabulary words which relate

15. DEVELOPING A CAREER KIT IS FUN (Cont'd)

to that specific job.

Label the boxes and keep them available for students to use when they have extra time.

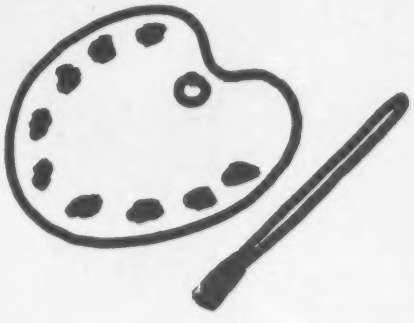
16. SOME PEOPLE WORK WITH IDEAS - SOME WORK WITH THINGS

Some people work with ideas and some work with things. Do these people work mostly with things or ideas?

1. Football player
2. Student
3. Lawyer
4. Child care attendant
5. Pharmacist
6. Gardener
7. Travel agent
8. Clothes designer
9. Judge
10. Newspaper reporter
11. Politician
12. Beautician
13. Ambulance driver
14. Writer
15. Flight attendant
16. Laundry worker
17. Salesperson
18. Teacher
19. Insurance agent
20. Bank teller

Have the students discuss their preferences about working with things or ideas.

People use things to express their ideas, such as a writer, (pencil, paint, brush). Name other workers who use things to express their ideas. And some people express their ideas by making things such as a carpenter, potter, dress maker, etc. Can you name other workers who express their ideas by making things?

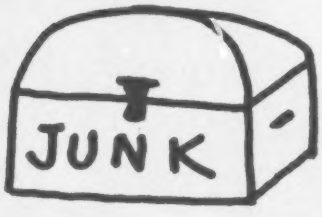


17. JUNK TRUNK

Fill a trunk with all sorts of items relating to the world of work. (This could be a box or basket.) Items might include hats, tools, clothing, pieces of material, equipment, etc. Have the students pick and choose from these items to strengthen all kinds of skills. Activities might include:

1. Choose four pieces of junk that could be used in one particular occupation. Write about how these items are used.
2. Learn to spell the names of 5 pieces of junk.
3. Write a detailed description of one piece of junk.
4. Find 5 pieces of junk that have a long vowel sound or that begin with a blend.
5. Choose six pieces of junk -- arrange them in order of their size or weight.
6. Write a story using 3 pieces of junk as the focus (creative writing).
7. Imagine one piece of junk is alive. Tell about its life.
8. Invent a new gadget by combining several pieces of junk.
9. Prepare a speech explaining how one piece of junk works. Then give the speech to the class.
10. Use adjectives to describe a piece of junk to the rest of the class -- can they guess which piece it is?
11. Have students bring pieces of junk to add to the trunk.

Credit - #7



18. WHO IS A STAMP COLLECTOR AND LIKES CHOCOLATE PIE?

Give each student a sheet of paper but do not have them write their names on the papers. Then have them list three things they are good at, their favorite food, a career choice, a hobby, and other personal characteristics. Gather the papers and redistribute them at random. Have the children try to figure out which person's personal characteristics are on the paper.

Being perceptive about other people helps individuals understand themselves.

19. HOW CAN THAT BE?

If people understand themselves it is easier for them to understand others. Workers need to understand themselves and others in order to complete a task in the least amount of time without hurting one another. Read and discuss with the class the following quotations:

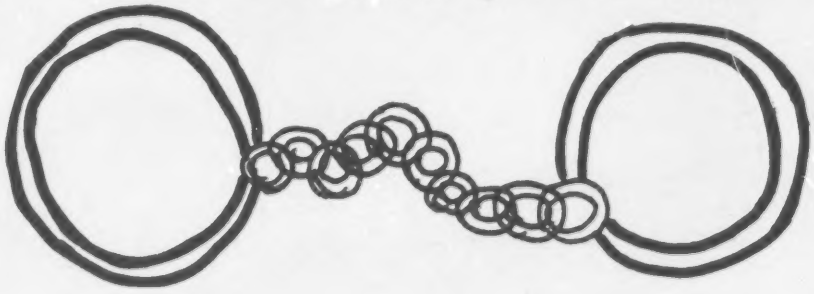
1. "Every man is three men: the man he thinks he is, the man others think he is, and the man he really is."
2. "We best understand others by understanding ourselves: we best get along with others by understanding them."

How do these ideas apply to you? How do they apply to your friends? How do they apply to you and others as workers in a group?

WRITTEN COMPOSITION

20. DEAR MOTHER, RIGHT NOW I WANT TO BE A POLICE OFFICER

Have each child write a friendly letter to a parent. Get the children started by having them start their letters this way: "Lately I have been thinking about being a _____ when I grow up. What do you think of my idea? I know I will have to do the following things...." Discuss in class responses children get from their letters.



21. MY PEN PAL LIVES IN A 40 STORY APARTMENT HOUSE!

Write to a class in a community very different from yours. Trade names, ages, and addresses, so that each student can pick a pen pal. Students might exchange pictures, newspapers, and other items of interest. What do these items tell you about that community? How is it different from yours? Compare and contrast lifestyles.

22. OH ME! THAT WOULD BE DREADFUL!

Have the children write a story about one of these situations:

1. The day when all the money disappeared.
2. The day when all the food spoiled.
3. The day when there were no more vacant places to live.
4. The day when everyone wanted to do the same thing.
5. The day when all transportation stopped.
6. The day all the water became contaminated.

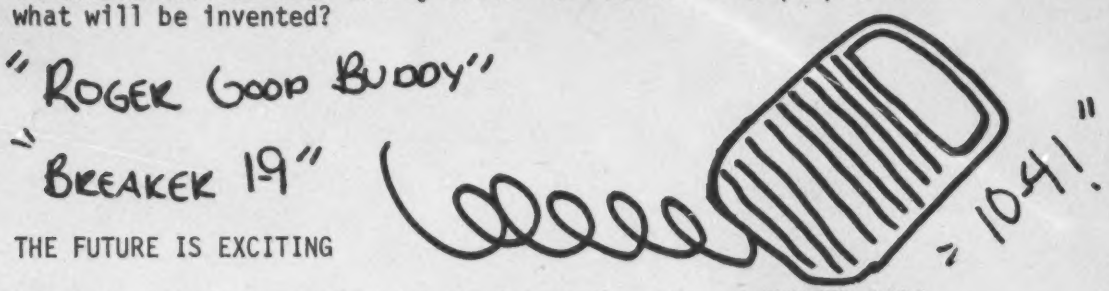
Have them read their stories to the rest of the class. Why did those situations happen? Were people doing what was expected of them in their jobs?

23. THE AMA SAYS THAT JOB OPPORTUNITIES ARE GOOD!

Help your students learn to write business letters by having them write to companies and business associations asking for job information. Excitement will run rampant when responses begin to come back. Make a file of your information and refer now and then to the different pamphlets to keep your students interested in using them. You can obtain addresses from magazines or use the ones given. (See ... PAGE 107).

24. THIS IS A TRANS-UNIVERSAL MESSAGE SENDER

Children can make a list of inventions dealing with communications that have been developed down through the years. Put them in chronological order. Think about possible inventions of the future that could aid communications. Have each student choose one of these inventions to describe and illustrate. They should describe how the invention will be used and by whom. How do needs of people affect what will be invented?



25. THE FUTURE IS EXCITING

Have your students explore their future by using ACTIVITY PAGE 109. After they complete the page share the responses of each item. Are these realistic answers? What will they have to do to make these things happen?

26. LET'S ALL WRITE ABOUT PRESIDENT CARTER

Students should write a description of some adult they know, telling about values and priorities that person holds while working, spending money, using leisure time, etc. Or, the whole class might describe one person in the public eye. Have them read aloud the paragraphs and discuss how the descriptions have some common parts but that people notice different things about other people.

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27. CLASSIFIED ADS AS RESOURCE FOR STUDY

Study the classified section of your local newspaper. Read and discuss the various types of ads included in this section. As a class write a classified section for a newspaper. Decide the areas you wish to include. Each student is to write 3 ads, each for a different area. Do the ads make sense to those reading them?

28. ALL SUBJECTS ARE IMPORTANT

After your students have completed ACTIVITY PAGE 111 discuss their answers. How do the answers differ? Why?

29. COMPUTER PROGRAMMERS -- THEY DIDN'T HAVE THEM THEN

Discuss how new jobs have been created during the last 30 years due to changes in technology. Have your students chose one of these jobs to research. Have them include:

1. Why the job was created.
2. Where you find most of these new jobs.
3. New skills needed for workers in that job.
4. Prospects for continuation of the job.

30. LET ME SEE. WHEN I AM OLDER I WILL BE RICH

Have the children imagine what type of adult lives they will be leading and write imaginary stories. Their career choices and lifestyles should be included.

As the children read their stories to the rest of the class, you might direct the discussion toward some of these ideas:

1. Where will you live to do those things?
2. Will you be serving people or producing a product?
3. What training will be required?
4. Will you take a lower position first and then work up?
5. Will this job pay a lot of money?
6. Is there a chance that someday people will not be needed in that occupation?
7. What do you think you will be doing at age 30? At age 50? At age 65?

31. GET YOUR ROOM 47 GAZETTE RIGHT HERE

Visit a newspaper plant. Have the children notice all the different workers. Discuss the parts of a newspaper and allow the children to choose various newspaper jobs which interest them. Write and produce a newspaper about classroom happenings; distribute to classmates and send a copy home with the children. Be sure to have each child's name in the paper at least once. Include such parts as: current events, coming events, comics, cartoons, Dear Abby, sports, weather, ads, school menu, and lost and found. You might sell the paper for 2¢ or a nickel. Bookkeeping and business skills can be an added learning activities.

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UNDERSTANDING LITERATURE

32. ABRAHAM LINCOLN: STORE CLERK, RIVER BOAT OPERATOR, SURVEYOR, LAWYER, PRESIDENT

Have the children read about some famous person to see what other jobs that person had beside the well-known one. Talk about how some people have to start at the bottom while others have various advantages from the beginning.

Be sure to find out how some local people who are authority figures moved up the ladder of success.

33. AND IN THIS CORNER WE HAVE ....

Have a special place in the classroom for career-related materials. If your school has an Occupational Outlook Handbook borrow it and put it in your career corner. Obtain pamphlets by writing to sources given in it or from other sources, and have these filed. Also see student ACTIVITY PAGE 107 for some addresses to write to for career information. Have the children help you gather materials. Set aside time now and then for a few children at a time to read the materials. (You may order the Occupational Outlook Handbook from the U.S. Dept. of Labor, Bureau of Labor Statistics, 300 South Walker Drive, 8th Floor, Chicago, Illinois 60606.) The cost for the 850 page book is around $7.00

34. ROLES AND GOALS

Have students read a biography. Suggest that they pay close attention to the person's goals and lifestyle. Ask the students to give oral reports on these two aspects. After all reports are given, hold a class discussion on the students' goals and desired lifestyles.

35. "LET ME BUT DO MY WORK FROM DAY TO DAY"

Read the poem together and decide what Henry Van Dyke is saying. Then let the children write their own poems or cinquains.

WORK
by Henry Van Dyke

Let me but do my work from day to day
In field, or forest, at the desk, or loom,
In roaring market place or tranquil room;
Let me but find it in my heart to say,
When vagrant wishes beckon me astray,
This is my work; my blessing, not my doom
Then shall I see it not too great, nor small,
To suit my spirit and to prove my powers;
Then shall I cheerful greet the labouring hours.
And cheerful turn when the long shadows fall
At eventide, to play, and love and rest,
Because I know for me, my work is best.

What is Henry Van Dyke telling us in this poem? Analyze the lines and read the lines that prove what you say. How does this poem relate to career awareness?

Carl Sandburg also has many good poems about work that you might want to discuss.

SPEAKING

36. THE ME I AM DISCOVERING

Each morning give students ten or fifteen minutes to talk about things that happened to them the previous day. Some of these might be:

1. What was the nicest thing that happened to you?
2. What was the nicest thing you did for someone else?
3. What was something that you tried that was new for you?
4. What was the prettiest thing you saw?
5. What did you learn about yourself?
6. What would you like to happen for you tomorrow?

How do all of these experiences help to make all people different?

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37. HOBBY SHOW IN ROOM 3 AT 1:00 O'CLOCK

Plan a hobby show for your classroom. Ask the children to bring in items which pertain to each of their hobbies. The children, then, should explain why they enjoy their individual choices. Be sure the children understand why some activities interest some people but do not interest others. You may want to invite other classes to visit your displays.

38. MY NEIGHBOR DOES SCULPTURING

Have each student interview a parent, friend, or neighbor who has an unusual job or leisure time activity. Each student should then prepare a 3 to 5 minute presentation for the class. Any tools or equipment used by the worker might be used as part of the presentation. Why do people choose unusual occupations? Do they naturally fall into them through special interests or skills?

39. THE NEWS IS BROUGHT TO YOU TONIGHT

Have the students write and produce a 15 minute news broadcast. They should write sports, news, and weather articles as well as commercials. Charts, pictures and graphs might be used to add variety. Be sure people have working titles. If your school has video equipment, you may want to tape the broadcast. Invite another class to see the presentation. What did they have to do to organize the broadcast? How did they decide who would do what? Where did individuals get the information for their parts of the program?

40. KNOW YOUR SCHOOL

To help your students gain confidence in expressing themselves to adults have them interview the school custodian, cook, principal, librarian, art teacher, secretary, safety patrol person, etc. to find out:

1. Various tasks that each person does.
2. What training was required.
3. What that person's responsibilities are.
4. What people are responsible to, or dependent upon, that person.

The students will report back to the class by making 2-3 minute presentations.

41. SAY THAT WORD AGAIN

Choose a partner. One person puts on earphones and tries to read the other's lips as these words are said:

1. You
2. House
3. Read
4. Horse
5. Do
6. Apron
7. Sure
8. Blue
9. Road
10. Wagon
11. Man
12. Late
13. People
14. Purple

Direct a blindfolded person across the room by verbal directions only. Try this: With one hand behind your back tie your shoe. Or, spend one-half hour doing your regular activities but use only one hand. Discussion leads: How does it feel to be handicapped? Would you be interested in finding out about working with handicapped people? Do you have any disadvantages that have to be dealt with in a special way? (See ACTIVITY PAGE 113 for Sign Language Alphabet and additional activities.)

42. MOM LIKES HER JOB -- MOST OF THE TIME!

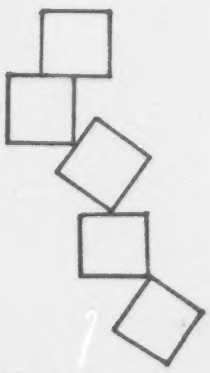
Ask your students to talk to their parents about their jobs. Tell them to find 3 advantages as well as 3 disadvantages to the type of work their parents do. Have the students discuss with the class the advantages and disadvantages of their parents' jobs and why they might not be advantages or disadvantages to someone else.

43. SUCCESS IS ....

Write on the board, "To me success is...." Let each student finish the statement. Record the responses on the board. Perhaps you can make an illustrated booklet as to what "SUCCESS IS..." patterned after Charlie Brown's "HAPPINESS IS...." After all the children have expressed their thoughts, try to write a definition of success which is agreed upon by everyone. What do we mean when we say a person is successful in his or her job?

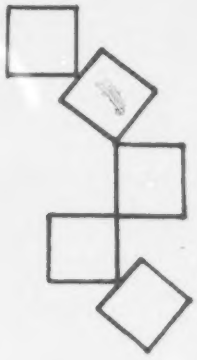
44. LISTEN TO ME VERY CAREFULLY AND DO EXACTLY AS I SAY

To impress upon the students' minds the importance of communication, choose one student with good verbal ability to come to the front of the room. Give each of the other students a blank sheet of paper. Have the one student stand somewhere so the students cannot see that person. Using verbal communication only, the student will instruct the students to make this design, each being 3 centimeters square. No questions are allowed.



45. LISTEN TO ME VERY CAREFULLY AND DO EXACTLY AS I SAY (Cont'd)

Then have the person visible to the class and allow students to ask questions if they wish and draw this design: (No hand gestures are allowed.)



Discuss the results. Stress the verbal communication skills. Were they able to follow the directions given? Why not? Which occupations require precise verbal skills?

CREATIVE DRAMATICS

46. WHAT IF DAD WORKS NIGHTS?

Have each of your students make a list of 5 activities which they like to do with their parents. Discuss what activities they could not do if their mom or dad worked days and those they could not do if their parents worked nights. Role play a typical situation in which the parent comes home in the afternoon and also when one comes home in the morning. Discuss the differences, advantages, and disadvantages, and how they affect the home unit.

47. ROLE PLAY

Have your students look in mirrors. Work on facial expressions such as happy, sad, anger, disappointment, surprise.

Suggest that they try to be more expressive in these ways. Talk about sincere expressions and how it is very important to be sincere with feelings. Do people communicate their feelings by facial expressions?

48. LET'S DO "THE CASE OF THE MISSING DOLL."

Discuss play acting and all the jobs related to the theater. Determine the qualifications of each. Choose a play that can be easily done in the classroom. Re-write any parts needing change. Determine all the jobs needed to produce the play and give each an occupational title. Select children to fill the various occupations and be sure to include props, costumes, and sets.

After presenting your play, discuss again qualifications as well as feelings toward each job. Let the children express which jobs interest them and which do not and the reasons for them.

49. NUMBER 17, DO YOUR THING

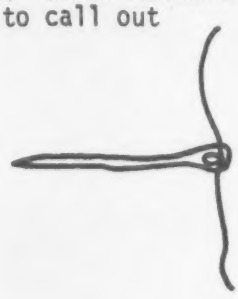
Have slips of paper with a number on one side and a job on the other. Some jobs you might include are:

1. Truck driver
2. Milk delivery person
3. Car salesperson
4. Doctor
5. Dentist
6. Secretary
7. Dancer
8. Teacher
9. Minister
10. Cook
11. Plumber
12. Bus driver
13. Photographer
14. Carpenter
15. Coach
16. Farmer
17. Gas station attendant
18. Telephone operator
19. Barber
20. Pianist
21. Florist
22. Boxer

49. NUMBER 17, DO YOUR THING (Cont'd)

23. Garbage collector
24. Window washer
25. Painter

Students sit in a circle; each one draws a slip of paper. One student is "It" and calls out a number. The student with that number stands and pantomimes the occupation listed. Other students try to guess. The student who guesses right gets to call out another number.



50. RIGHT HERE I HAVE A LOVELY VACUUM CLEANER

Role play customer and salesperson situations. For example:

1. Returning pants that are too small.
2. Returning a toy that does not work.
3. Unhappy customer who has been kept waiting.
4. Customer complaining about being short changed.
5. Salesperson about to be taken by a short-change artist.
6. Customer seen to be shoplifting.
7. Customer about to decide <u>not</u> to buy the TV.

Talk about good sales techniques as well as poor ones. How can feeling good about oneself sell other people on you as a person? How can feeling good about yourself help to sell a product? Techniques for selling things are often the same ones as those for making friends.

51. TEACHERS' MEETING IN MRS. SMITH'S ROOM TODAY

Have your students role play a teachers' meeting. Include various administrators. Assign roles and give the "faculty" a specific problem to work on (you may want to use only 4 or 5 students and have the rest be observers). Ask them to solve the problem. Afterwards, discuss if the principal or vice principal should make all the

51. TEACHERS' MEETING IN MRS. SMITH'S ROOM TODAY (Cont'd)

decisions. Discuss the need for structure in our society and the need for leaders.

52. SENATOR, HOW DO YOU FEEL WHEN YOU LOSE?

Role play prominent political and social leaders. Hold mock interviews.

1. What makes you successful?
2. What are some qualities of a politician?
3. How do they feel when you lose?
4. Why do some people have personal magnetism while others do not?

Pick out successful people in politics. Why are they successful? Are they popular with the people?

LISTENING

53. MY NAME IS TAD AND I LIKE TO PLAY SOCCER (Game)

Play this game at the beginning of the year to assist in getting acquainted. Sit with your class on the floor in a large circle. One person begins by saying, "My name is Marta and I like to ride horses." The next person says, "This is Marta and she likes to ride horses. My name is Bill and I like airplane models." On goes the game around the circle. Each student must remember what each person's name is and what that person likes. When students cannot remember, they are not excluded. Allow the others to help out. Not only will your students remember each other's names but they will know something about them.

54. LET ME ASK YOU THIS

Invite a worker to your class to tell about the language skills needed in his/her occupation. Discuss the following questions with the speaker, as well as your students, before the speaker comes so the children will be ready with good questions and the speaker will have an idea of the types of questions the students will ask:

1. What kind of language skills do you use in your work?
2. Did you need special training for these skills?
3. What other skills do you use in the job?
4. Was this your first job choice?
5. How did you get this job?
6. How many different jobs have you had? What were they? What language skills did you use in those jobs?
7. What do you like the best about your job? The least?
8. Who depends on your work?
9. How does your work affect your personal life?
10. How much do you earn? How much did you earn when you first went to work there?
11. What type of preparation did you need for your job?
12. What tools do you use most?

55. THE BOSS AND NOW THE WORKER

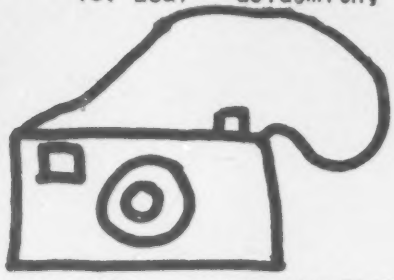
Plan to have an authority figure and a worker from the same company visit your classroom. Select with your students questions you will want to ask them. After listening to both people, discuss how the positions are different and how they are alike. Why is it necessary to have both bosses and workers? Should a worker always follow the boss' directions? What are the advantages and disadvantages of each?

56. PITCH IN BASEBALL, PITCH IN MUSIC, PITCH IN LUMBERING

Every occupation has its own vocabulary. Some words have different meanings in different jobs. Talk about the meaning of these words in the occupations listed. There are many more. Make your own list.

1. Pitch - Musician, baseball player, architect
2. Shoot - Photographer, soldier, gardener
3. Run - Politician, fisher, actor
4. Iron - Golf pro, laundry worker, foundry worker
5. Wave - Hairdresser, sailor, physicist
6. Hand - Farmer, clockmaker, horse trader
7. Cut - Surgeon, film director, chef
8. Train - Stationmaster, dressmaker, boxer
9. Charge - Lawyer, cashier, mining engineer
10. Leaf - Goldsmith, furniture maker, printer

Credit - #8



57. HOW ABOUT....SHOE MANUFACTURERS? RAILROAD ENGINEERS? MEDICAL TECHNICIANS?

Arrange small groups. Have one child, as leader, name an occupation found to be interesting. Then each child in the circle must name some facet, either tools, qualifications, training, money earned, etc. which relates to that occupation. When each child has described the job in some way, the leader will try to remember as many of these descriptions as possible. Keep score of the number of correct responses. After the leader has made a score by repeating as many related words as possible, the next child will become leader and name an occupational choice. Each child responds with a describing word or phrase. And so goes the game. The student remembering the most description words is the winner.

58. DID YOU HEAR THAT?

Invite a local person involved with radio or TV production to talk to your class. Have that person discuss with the class what characteristics they look for when choosing material for programs. Why do broadcasting stations need to be concerned with what people like to hear?

Suggest that the class watch their favorite TV program to discover what techniques are used to get people to listen and watch the program. Discuss how variety of characters, materials, backgrounds, sound qualities, as well as pace, costumes, and lighting is used. Try to think of all the workers who are involved in producing such a program.

The class may want to write their own TV program using the same format as that of the class favorite.

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ACTIVITY PAGE

OCCUPATION PUZZLE

(1) Find the following occupations either across, down, or diagonally in the puzzle.

ACTOR
AIDE
ATHLETE
DENTIST
DESIGNER
DOCTOR
FARMER
JOCKEY
JUDGE
LAWYER
LIBRARIAN
LINEMAN
MAIL CARRIER
MINISTER
NEWSPAPER REPORTER
PAINTER
POLITICIAN
PRIEST
SECRETARY
TAXI DRIVER
TEACHER
TELEPHONE OPERATOR
TRUCK DRIVER
VETERINARIAN
WAITER
WELDER
WRITER
ZOO KEEPER

N B W T E R J A I N E R A T H L E T E D
E E A I S J I U N D L A N G E I S L O G
F L W T D O U C D E I A R S N B G M Z L
H D E S I G N E R G W A I T E R E S D M
D E G A P G S B U I E R M A W A C T O R
T S E L F A R M E R L A W Y E R B O C E
R E N I A M P E R T D N E N S I I T T R
U W L N N I R E I O E G S O E A M Z O Q
V E W E O L I M R R R D W M O N U D R U
E T E M P I R B K R P O L I T I C I A N
N R W A S H T C X Z E W R Y T N C G H O
M I F N W I O M P E I P R I E S T O A T
A X I T E I N N E R T J O C K E Y B P R
I Z O O K E E P E R I N G R I C R E E U
L E W N E V W O N O C E E N T R E D G C
C N D E D E R E S T P E M O I E B E J K
A X Z T A X I D R I V E R K N T R N O D
R M E K T E S C A W B O R P E A R T T R
R Y S V E T E R I N A R I A N R O I Y I
I A R P A I N T E R N G G E T Y R S I V
E A I D E S W R I T E R R I N O D T E E
R T E A C H E R R M I N I S T E R S E R

(2) See how many other words you can find with three letters or more. There are at least fifty. See if you can find more than fifty. (You may need one page for the first puzzle and a clean one for the second.)

ACTIVITY PAGE

Think about these occupations.

Teacher	Lawyer	Athlete	Telephone operator
Truck driver	Zoo keeper	Doctor	TV repairperson
Farmer	Waiter	Secretary	Forest ranger
Actor	House builder	Judge	Telephone line worker

Name 3 jobs above where you would be outside most of the time.

1.

2.

3.

Name 3 jobs above which require very good language arts skills.

1.

2.

3.

Name 3 jobs above which require a college education.

1.

2.

3.

Name 3 jobs you would like to have when you get older.

1.

2.

3.

Name 3 jobs above where you would probably work alone most of the time.

1.

2.

3.

Name 3 jobs above where you must be able to use your hands well.

1.

2.

3.

Name 3 jobs above where you probably would make a lot of money.

1.

2.

3.

Name 3 jobs you would not like to have when you get older.

1.

2.

3.

ACTIVITY PAGE

Match the worker with the tool used. Place the number before the worker.

WORKER	TOOLS AND EQUIPMENT
_____a. Nurse	1. Wires and ribbons
_____b. Auto mechanic	2. Costume and make-up
_____c. Teacher	3. Grease gun
_____d. Juggler	4. Boots and fatigues
_____e. Florist	5. Thermometer
_____f. Soldier	6. Tractor
_____g. Welder	7. Grade book
_____h. Actor	8. Dictaphone
_____i. Farmer	9. Ten glass plates
_____j. Secretary	10. Mask and heavy gloves

Some jobs have dangerous parts. Match the job with a difficult place that person might have to go to work.

_____a. Smelter worker	1. Smoke-filled attic
_____b. Window washer	2. 120° 8 hours a day
_____c. Line repair person	3. Hazardous roads
_____d. Miner	4. 200 feet up over the water
_____e. Airplane mechanic	5. 100 stories up on a platform
_____f. Firefighter	6. Among snipers or crazy killers
_____g. Bridge painter	7. One mile underground
_____h. Police officer	8. Crawl space in the wing
_____i. Scuba diver	9. Deep dangerous waters
_____j. Street sander	10. The top of a pole

ACTIVITY PAGE

In Illinois the Department of Adult, Vocational, and Technical Education lists five clusters (families) of occupations. They are:

1. Agricultural-jobs working with soil, plants, and animals.
2. Business-jobs dealing with the exchange of goods and/or services.
3. Health-jobs to keep the world a healthy place.
4. Industrial-jobs making things and repairing them.
5. Public and Personal Services-jobs which help others.

List the following jobs in the right boxes. There should be 5 occupations in each row.

Secretary	Farmer	Store owner
Doctor	Welder	Dentist's assistant
Bank teller	X-ray technician	Bookkeeper
Dentist	Musician	Forest ranger
Minister	Miner	Dietician
Automobile mechanic	Actor	Engineer
Clerk	Apple grower	Cab driver
Chicken grower	Teacher	Christman tree grower
Carpenter		

AGRICULTURAL	BUSINESS	HEALTH	INDUSTRIAL	PERSONAL AND PUBLIC SERVICE

ACTIVITY PAGE

ALL ABOUT ME

My name is _____.

Today I feel _____.

Something special about me is _____.

My uncle always _____.

I'd rather _____ than _____.

I like teachers that _____.

My favorite place to be is _____.

Something that bothers me is _____.

When I am alone _____.

Where I live _____.

The most important person in the world is _____.

Before I go to bed I like to _____.

I wish I could _____.

Sometimes I like to _____.

I think school should be a place where _____.

I feel nervous when _____.

I wish people wouldn't _____.

It makes me angry when _____.

I feel proud when _____.

This year I hope _____.

One thing I'd like to know about the teacher is _____.

One thing I'd like the teacher to know about me is _____

_____.

ACTIVITY PAGE

CUT EACH SENTENCE APART ON THE LINES. MIX UP AND THEN TRY TO PUT THEM BACK TOGETHER SO THE WORKER IS MATCHED WITH THE RIGHT JOB AND THE RIGHT TOOLS.

A WAITRESS	USES PENCIL AND PAD	TO WRITE YOUR ORDER.
THE ROAD WORKER	SPREADS TAR	WITH A ROLLER.
THE OFFICIAL	BLOWS A WHISTLE	WHEN A FOUL IS MADE.
A DESIGNER	SKETCHES PATTERNS	ON PAPER.
A MODEL	HELPS SELL CLOTHING TO BUYERS	IN SHOWROOMS.
A BASEBALL PLAYER	USES A GLOVE	TO CATCH A BALL.
A WILDLIFE MANAGER	CARES FOR ANIMALS	IN A SANCTUARY.
PEDIATRICIANS	TREAT ILLNESSES	OF CHILDREN.
THE X-RAY TECHNICIAN	HELPS THE DOCTOR	DIAGNOSE ILLNESSES.
A GLASS TESTING SUPERVISOR	TESTS LIGHT BULB GLASS	FOR STRENGTH AND QUALITY.

ACTIVITY PAGE

CAREER INFORMATION ADDRESSES

BARBERING
National Career Center
3839 White Plains Road
Bronx, New York 10467

BEAUTICIAN
National Career Center
3839 White Plains Road
Bronx, New York 10467

INDUSTRIAL ARTS
American Industrial Arts Assoc.
1201 16th Street, N.W.
Washington, D.C. 20036

FARMING
U.S. Dept. of Agriculture
Washington, D.C. 20250

LAWYERS (40¢)
American Bar Association
1155 East 60th Street
Chicago, IL. 60637

TEACHERS
American Federation of Teachers
11 Dupont Circle, N.W.
Washington, D.C. 20036

BUILDERS
Associated Builders and
Contractors, Inc.
P.O. Box 8733
Baltimore-Washington International
Airport, MD 21240

ROAD CONSTRUCTION
American Road Builders' Assoc.
ARBA Building
525 School Street, S.W.
Washington, D.C. 20024

CARPENTRY
United Brotherhood of Carpenters
and Joiners of America
Apprenticeship and Training Dept.
101 Constitution Ave., N.W.
Washington, D.C. 20001

SECRETARY ($3.00 for kit)
The National Secretaries Assoc.
2440 Pershing Road
Suite 610 -- Crown Center
Kansas City, Missouri 64108

ARMED FORCES
Naval Architects and Marine
Engineers
74 Trinity Place
New York, N.Y. 10006

NEWSPAPER WORK
American Newspaper Publishers
Assoc. Foundation
P.O. Box 17407
Dulles International Airport
Washington, D.C. 20041

TRUCKING
American Trucking Assoc., Inc.
1616 P. Street, N.W.
Washington, D.C. 20036

PHYSICAL EDUCATION AND COACHING
American Association of Health,
Physical Education and Recreation
1201 Sixteenth Street, N.W.
Washington, D.C. 20016

HEALTH OCCUPATIONS
American Medical Association
Bureau of Health Education
535 N. Dearborn Street
Chicago, IL 60610

DENTISTRY
American Dental Association
211 East Chicago Avenue
Chicago, Illinois 60611

ILLUSTRATING & GRAPHIC ARTS
Society of Illustrators
128E 63 Street
New York, N.Y. 10021

HOME ECONOMICS
American Home Economics Assoc.
2010 Massachusetts Ave., N.W.
Washington, D.C. 20036

SPACE
National Aeronautics and Space
Administration
Washington, D.C. 20546

CLOTHING
Amalgamated Clothing Workers of
America
15 Union Square
New York, N.Y. 10003

ACTIVITY PAGE

THE FUTURE IS EXCITING

1. When I grow up I want to be _____.
2. When I get older I would like to go _____.
3. What will be different about school next year?

_____.

4. Which of my friends would I like to have when I am grown up?

_____.

5. What will I look like?

_____.

6. Where will I live?

_____.

7. What kind of home will I have?

_____.

8. How much money will I earn?

_____.

9. What kind of job will I have to have to earn that money?

_____.

10. What kind of adult would I like to be?

_____

_____.

11. How will I spend my free time?

_____

_____.

12. How will I help other people?

_____.

13. What can I do to make me a better person?

_____.

14. What should I do now to help me get ready for the future?

_____.

ACTIVITY PAGE

YOU REALLY WANT MY OPINION?

NAME_____

1. How many days a week do you think you should go to school?

   _____3 days _____5 days
   _____4 days _____6 days

2. Where is language arts used the most?

   _____at home _____by parents
   _____at school _____by teachers
   _____at work _____by students

3. Why do we study language arts?

4. List 3 jobs which you might like to do when you get older?

   1.
   2.
   3.

5. List some important things a person must know before choosing an occupation?

6. If you were interested in a job, what would you do to find out more about that job?

7. Place the number "1" by the subject you think is most important in school, place the number "2" by the subject you think is second most important and so on. Number "10" will be least important.

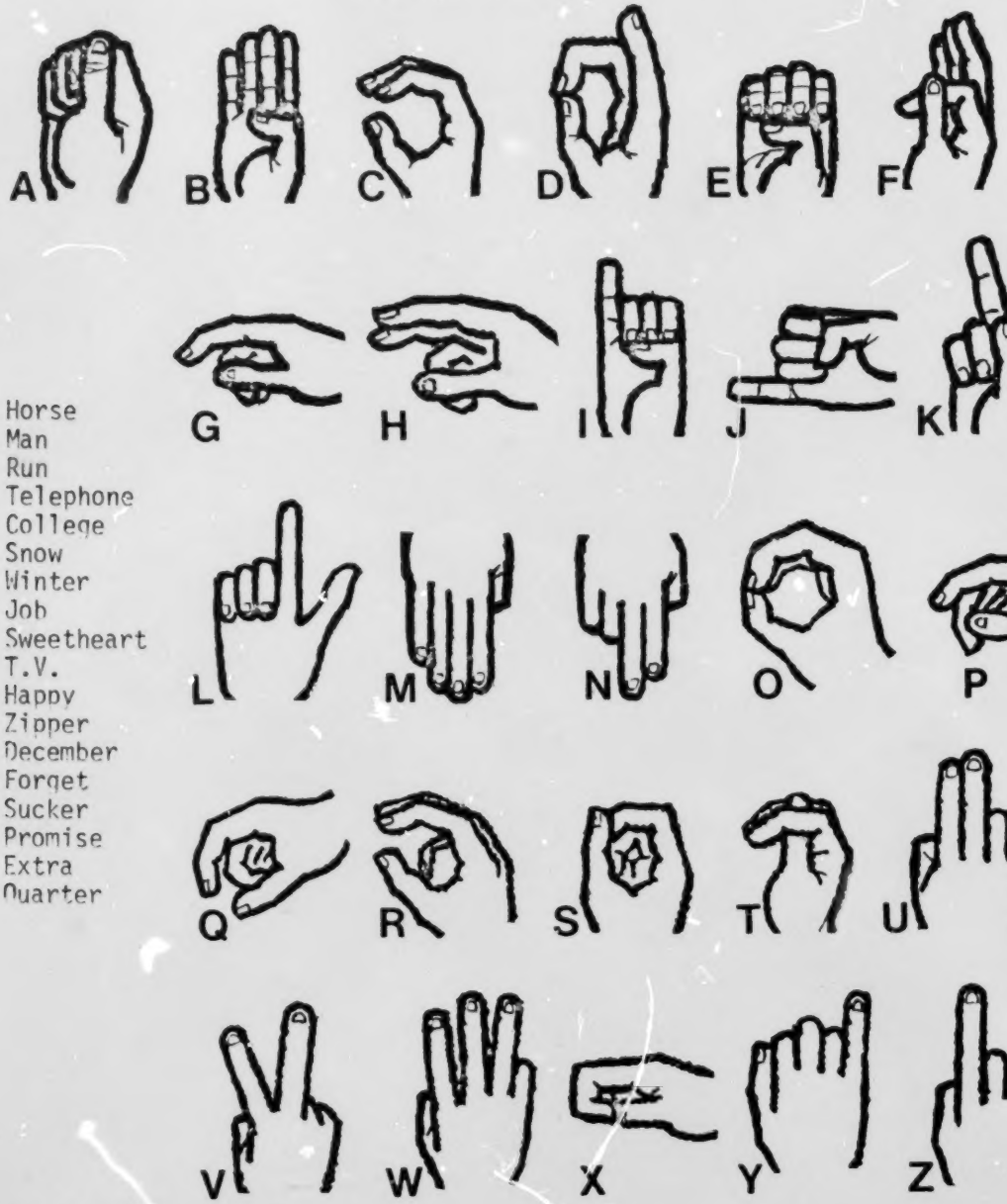
___art	___science	___spelling	___reading	___English
___math	___writing	___music	___social studies	___physical education

8. Place the number "1" by the subject you like best, place the number "2" beside the subject you like second best, etc., number "10" is the subject you like least.

___art	___science	___spelling	___reading	___English
___math	___writing	___music	___social studies	___physical education

ACTIVITY PAGE

SIGN LANGUAGE



Horse
Man
Run
Telephone
College
Snow
Winter
Job
Sweetheart
T.V.
Happy
Zipper
December
Forget
Sucker
Promise
Extra
Quarter

Activities:

1. Learn to say your name without looking at this sheet.
2. Teach others to say their names using sign language.
3. Practice your spelling words using sign language.
4. Send a message across the room to a friend.

Related Activities:

1. Discuss ways to cope with such a handicap as deafness.
2. When might it be an advantage to be deaf?
3. Read about the life of Helen Keller or read, "The Miracle Worker."
4. Would you enjoy a job training deaf people? What would be some of the things you would need to teach them other than sign language?

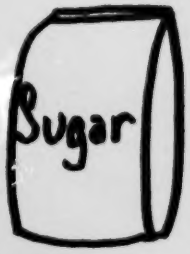
MATHEMATICS

SPRINGBOARDS

NUMBERS AND NUMERALS

1. I'VE NEVER SEEN SUCH A LARGE BAG OF SUGAR

   Take your class to the school cafeteria and kitchen. Find out how many students the workers there serve each day and how much food they prepare in order to serve that many. Look at the recipes they use. How many servings do they make? How much of each ingredient is needed to make enough to serve 50 people, 200 people, 500 people? Look at their measuring tools. How large are they? How much larger are the cans, bottles, bags and boxes of ingredients then those at home or in the grocery store?



2. TODAY I EARNED 53 POINTS!

   Set up a point system whereby your students earn points. Points can be gained for completed work (classwork and homework), completed classroom tasks (taking attendance to office, erasing board, etc.), making a bulletin board, giving a report, etc. Make a chart for all the possible points and have the students, as well as you, keep track of their points on a daily, weekly and monthly basis.

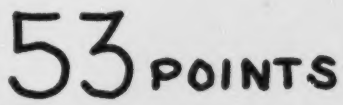
   At the end of each week, compile the scores for different groups of students, such as:

   1. Everyone sitting in the first row of desks
   2. Everybody whose first name has 2-4 letters, 5-7 letters, 8 or more letters
   3. Those who went to bed by 8:30 the night before, those who went to bed by 9:00, those who went to bed after nine

2. TODAY I EARNED 53 POINTS! (Cont'd)

Have each group figure:

1. The total points
2. The average number of points
3. Repeat No. 1 and 2 using scores from all groups. What was the range of scores for the week? What can those with low scores do to raise their scores next week?



3. MAGIC OCCUPATIONS, TOOLS, PRODUCTS

As a fun activity, to combine math skills with occupational awareness, have your students complete the puzzle on ACTIVITY PAGE 137.

4. WE NEED TIME FOR COMMERCIALS

Plan a half-hour radio show. Have your students determine how many programs and commercials are needed to fill the thirty-minute show. How do news broadcasters determine the length of time each news item should last? How do they know if they have enough news items for the entire broadcast?

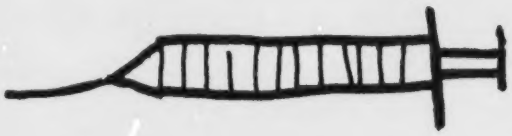
5. I NEED TO ORDER BANDAIDS

Take your class to visit the school nurse. What kind of supplies does the nurse use each day? Determine how much of each item is used each year? How many bandages are in one box? How many boxes should be ordered for next year? Make out an order for health service

5. I NEED TO ORDER BANDAIDS (Cont'd)

supplies for one year.

Ask the nurse to teach your students how to read a thermometer. Perhaps the students could take each other's temperature and learn to read the thermometer.



6. I USE 10 REAMS OF PAPER A WEEK

Take your class to visit the school secretary. Find out how many supplies are used each week, each month, and each year. Help the secretary determine amounts of supplies to be ordered for the next year. You will have to remind your students that supplies are usually ordered by the box or case and that boxes and cases may vary in number of items they contain.

7. HOW DO YOU USE FRACTIONS ANYWAY?

Assign each student a different occupation. Have them each research that occupation and report back to class as to how addition, subtraction, multiplication, division, and fractions are used in that particular occupation. They may want to interview someone or invite someone to speak to the class. Possible occupational areas might include:

1. Construction - Plumber
2. Sales - Service Station Attendant
3. Insurance - Salesperson
4. Mechanical - Auto Mechanic
5. Manufacturing - Stocker
6. Medical - Lab Technician
7. Secretarial - Typist
8. Personal Services - Barber, Interior Decorator
9. Government-Related - Air Traffic Controller, Postal Clerk
10. Printing and Publishing - Printer

7. HOW DO YOU USE FRACTIONS, ANYWAY? (Cont'd)

11. Home Management - Personal Finance Loan Agent
12. Driving Occupations - Race Car Driver, Truck Driver
13. Utilities - Telephone Repairperson
14. Performing Arts - Artist, Musician, Radio Announcer

As an additional activity, each student could submit three story problems related to the occupation reported on. Each day have the class work on a different set of story problems. See if the class can guess the occupation about which the problems are written.

8. I SAY A BOOK REPORT SHOULD BE WORTH 5 POINTS

Have your students make out the list of activities to include in Springboard No. 2 of this section in which students earn points for completed work. Have them assign the completed work points based on a group consensus. Proceed as follows:

1. Give each student a list of the activities with a 1-5 point rating scale.

EXAMPLE:

	1	2	3	4	5
1. Book Report					

2. Have them rate each activity individually.
3. Divide the class in 4 groups.
4. Have each group find the total number of points for each item.
5. Have each group divide the sum for each activity by the number in the group.
6. As a large group activity have each group give you their average for each activity listed, add up these 4 scores and divide by 4 - this will be the group consensus on the point value of each activity on the list.

9. CUT DOWN TO THE CORNERS CAREFULLY NOW

Have your students make book jackets for their math books. They will have to measure the book's front, back, and binding. Designate how wide you want the flaps to be. It would be fun to decorate the front and back cover with math symbols or metric terminology.

10. LET'S BE CARPENTERS

ACTIVITY PAGE 139 will help your students become aware of and appreciate tools carpenters use. Before proceeding with the "unscramble" activity, make a display of carpenters' tools, labeling each with its proper name. Discuss their uses. Discuss how good quality tools make possible precise measure and good fit. Perhaps several of your students could go to the lumber yard and get a supply of different sized nails. Have them measure and label the nails. Add them to your display.

KEY

[C]HISEL
H[A]MMER
[R]IPSAW
[P]LANE
LUMB[E]R
[N]AIL
CROSSCU[T] SAW
SAWHORS[E]
D[R]ILL

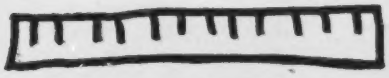
11. METRIC MEASURES

After your students complete ACTIVITY PAGE 141 discuss the occupations of people who need to know how to measure. How do they use measurement skills?

KEY

LENGTH	VOLUME	WEIGHT
Millimeter	Cubic Decimeter	Gram
Centimeter	Cubic Centimeter	Kilogram
Meter	Milliliter	Milligram
Kilometer	Liter	
	Cubic Meter	

TEMPERATURE	SPEED
Degree Celsius	Kilometer Per Hour



12. WOW, THAT'S FAST

To show that specialization has greatly increased productivity and that specialization leads to greater skill and efficiency needed in performing a task, involve your students in the following activity:

PART I - Divide your class into 5 groups. Each group is assigned the task of producing three-dimensional rectangles by measuring and outlining the figures, cutting out, and assembling. Each student will assemble his or her own geometric figures in their entirety. Each will use a ruler, pencil, scissors, and tape. The point of the game is to produce as many rectangles as possible within 10 minutes. You, as the teacher, will call time and determine the group winner.

PART II - Have the group winner of PART I continue producing in the same manner while the other 4 groups set up an assembly line where individuals specialize. Each group determines for itself the division of labor. Repeat the game twice (10 minute production periods). The group with the most efficient division of labor becomes the winner.

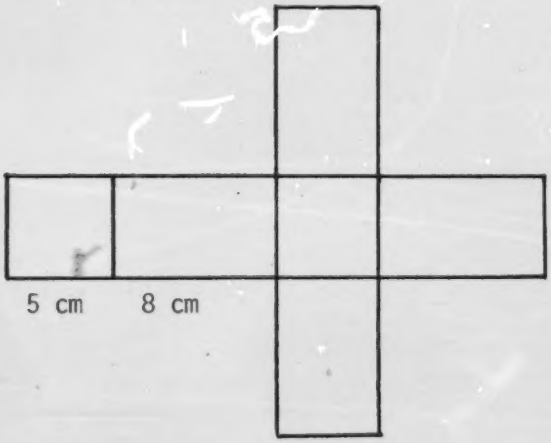
12. WOW, THAT'S FAST (Cont'd)

(NOTE: Time periods could be shortened but should remain consistent).

Discussion:

1. What kinds of feelings did the group that assembled the rectangles in their entirety in each of the 3 production periods have?
2. How did the other 4 groups decide to divide the labor?
3. What kinds of feelings did the individuals and groups have in each method?
4. Do you have labor divisions in your families? What kind? Do you have specialists? Who? What kind of divisions of labor do you see in your community? What kinds of specialists do you see?

EXAMPLE OF RECTANGLE OUTLINE:



13. I NEED 135 SQUARE METERS OF SOD

To develop an awareness of how the knowledge of measurement is necessary for a home owner, as well as a landscaper, have your students calculate the following problems:

1. Have your students be landscapers. Sod is sold by square meters. Suppose sod costs 50¢ per meter cut, hauled, delivered, and laid, and 25¢ per meter cut, but buyer must pick it up, haul, and lay it.

   A. Have your landscapers calculate the cost for an

13. I NEED 135 SQUARE METERS OF SOD (Cont'd)

area 14 meters by 8 meters:

1) At 50¢/meter
2) At 25¢/meter
3) Amount saved by owner doing the work?

2. Have your students be homeowners. Measure a particular area of the school yard and/or their yard at home and figure cost of laying sod at both places. Check your local area for current prices.
3. Have your students do the following research on landscape architects:

A. Kinds of landscape architects
B. Where jobs are found
C. Education/training required
D. Average earnings
E. Length of work week

14. WHAT MAKES MY DRAWING DIFFERENT?

Begin by having your students define scale drawings (the shape is the same, the size is different). Then have the students think of all the occupations in which people work with drawing scales. List the workers named on the board. Almost any type of builder or designer makes a scale model. (Examples of occupations: map maker, landscaper, architect, farmer, carpet layer, carpenter, bricklayer.)

Then have your students be map makers. With graph paper have them draw a scale map of your local school community and indicate near and familiar locations. Possible items to locate would be:

1. Streets
2. Students' homes
3. Public buildings
4. Schools
5. Parks
6. Churches
7. Industries
8. Stores and restaurants

Students might obtain a copy of the map of your city from the Chamber of Commerce to assist them in this activity.

14. WHAT MAKES MY DRAWING DIFFERENT? (Cont'd)

Additional Activities for Students:

1. Make scale drawings of the floor plans of the students' homes.
2. Make scale drawings of the school grounds or the classroom and its furnishings.
3. Do research and report on a particular occupation which requires knowledge and use of scale drawings.

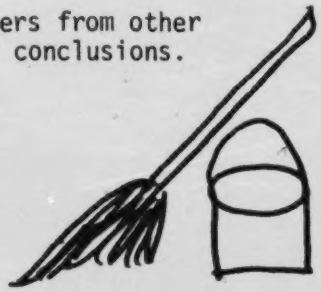
15. YES, A WELDER HAS SPECIAL TRAINING

Examine the want ads of the newspaper. Tabulate the following:

1. Jobs requiring no training
2. Jobs requiring special training
3. Jobs requiring high school diplomas
4. Jobs requiring college degrees

Develop a bar graph to show these facts. Keep in mind that often professional jobs are not advertised in newspapers but through professional journals.

Comparisons may also be made by getting newspapers from other areas of the country. Compare results and draw conclusions.



MONEY

16. LABELS, LABELS, LABELS ON THE TABLES, TABLES, TABLES

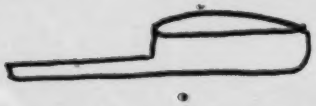
Have the children bring labels from empty cartons from home. Make sure the price and weight are on each label. Mark the product if there is no price. Form groups of items and have the children be shoppers and go from one group to the next to write down the prices and find the totals. You might also use division and ratio skills

16. LABELS, LABELS, LABELS ON THE TABLES, TABLES, TABLES (Cont'd)

to do a comparison check. This would reveal which product in which size container is the best buy. Sometimes people buy things because they see them advertized on TV. How does advertising influence the shopper?

17. LET'S MAKE CANDY

Have your students make cookies or candy. They can keep a record of the amount of ingredients used, the time spent in making the product, and the number of people involved to determine the selling price of their product. This idea can be extended to sewing, carpentry, painting, photography, decorations, art objects, services (e.g., mowing yards, washing dishes, doing odd jobs, etc).



18. THIS ONE COSTS LESS, BUY WHY?

Visit a local industry to trace the making of two similar products of different price value. Children should be able to compare price values by listing the materials, the time, and labor needed to produce each item. Compare values of toys, bicycles, candy bars, games, etc.

19. IS $5.00 AN HOUR ABOUT RIGHT FOR A POSTAL WORKER'S SALARY?

Using the money problems given in the textbook, make story problems to give the problems meaning. Be sure to always set the problems within work situations. Older children could do their own re-writing. Assemble the problems into class composed work sheets.

20. MONEY MAKES THE WORLD GO AROUND

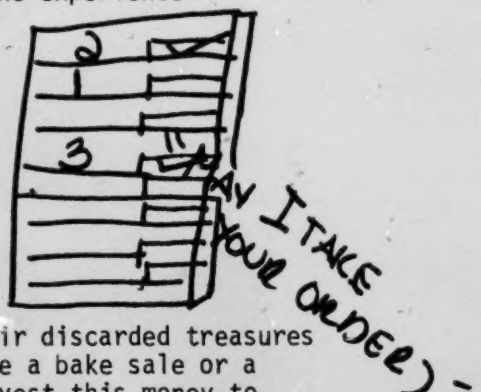
Establish a store within the school for learning, fun, and profit. Get a local school supplier to give you school supplies on consignment to sell to students for a 20% profit and/or form a company and make a product for the class to sell.

If the class makes a product, have your students fill out job applications and have them interview for the positions needed in their company. Possible positions might be:

1. Manager
2. Buyer
3. Designer
4. Manufacturer
5. Advertiser
6. Seller
7. Bookkeeper

After students have sold their products, and figured their profit or loss, have the company go out of business. Discuss with your students:

1. What was good about their company?
2. How could it have been made better?
3. How they felt about giving or taking orders from other students.
4. Did they feel their jobs were important?
5. How did they feel about other workers in the company?
6. In general, what did they learn from the experience?
7. How many ways did we use math?



21. THIS BANK GIVES MORE INTEREST

Early in the year have your students bring their discarded treasures to school or make items and auction them. Have a bake sale or a raffle. Research ways and decide on how to invest this money to make the most profit. Different interest rates, the fluctuating economy, as well as basic math skills, can all become a part of the learning situation. Withdraw the money in a few months and use it for a good cause, perhaps a donation to the school library, something for the classroom, or even a class party.

22. I GET PAID $2.30 AN HOUR

This activity will familiarize your students with the idea that a salary is a reward for work completed and will help them become aware of ways to plan their spending according to how much money they earn.

Talk about salary; what does it mean? When do people get a salary? Have the students ever received a salary? How much did they earn? How many hours, weeks or months did they work to earn that much? What did they do with the money they earned?

Tell your students to assume that they are being paid $2.30 an hour for doing their homework, practicing their music lessons, doing household chores, taking care of their pets, etc.

Their manager needs their help in keeping track of the number of hours they work each day so they can be paid the right amount. They are to use ACTIVITY PAGE 143 to keep track of their hours and the amount they earned. When finished they should answer the questions at the bottom of the page.

Discuss the completed activity sheet with your students. Have them set up a budget telling exactly what they plan to spend their earned money on and how much they will spend on each item. How much will they plan to save?

23. MY BUDGET WON'T ALLOW VACATIONS

Discuss the meaning of a budget. Talk about what a family of four (2 adults and 2 children) would include in a budget. Then have your students choose two jobs with different pay scales, one high and one low. They are to work out a budget for a family of four for each pay scale. Discuss the different budgets? How do salaries affect one's way of life?

24. LET'S INVESTIGATE THE ADS

This might be fun to do at Thanksgiving or any other holiday when grocery store prices are in competion for the same sale items. Have your students be homemakers and see who can shop for groceries to make a Thanksgiving meal for 8 people for the least amount of money.

Have them cut the grocery ads from the paper to bring to class. They can then make up a grocery shopping list of things they will need for their meal. Have them compare the prices of sale items at each store to determine what store would be most economical to shop at for their groceries. Have them total their groceries and figure the cost of the meal for each person. How would this figure compare to the cost of a similar meal at a local restaurant? Discuss the cost of preparing the meal, time involved in preparation, cost of utilities, cost of equipment and tools used, etc. How do restaurants figure out how much to charge for each item on the menu?

25. BIG FEATHER CHICKEN SHOP

Have your students be restaurant workers and complete ACTIVITY PAGE 145. Be sure to discuss the ideas listed on the page after they finish the activities. The answer for No. 5 on the ACTIVITY PAGE is $25.75. Have your students check each other's work for additional practice.

26. I GET PAID TOO

Have the students discuss the jobs for which they are now qualified, and discuss how much they might expect to be paid (baby-sitting, mowing lawns, paper routes, etc.). In what way are they contributing to society? What do they get back from society? What do they buy with the money they earn?

Then have the students discuss the pay they will get at age sixteen and later on in their lives and how this will affect them and society. How are working in school and working on a job alike? How are they different?

26. I GET PAID TOO (Cont'd)

ADDITIONAL ACTIVITIES:

1. Figure the number of hours spent in school. Figure the number of hours spent on a certain job. How are these figures alike?
2. Choose a career and figure the weekly, monthly, and yearly salary.

27. MY PAYCHECK JUST NEVER GOES FAR ENOUGH

Your students can learn some mechanics of basic economics by earning make-belive weekly paychecks. Each student draws a set salary for completing assignments and classroom tasks.

One way students learn about the work involved in an economic system is by assuming the necessary jobs in the classroom. They can compute taxes, manage financial records and balance checkbooks.

They should determine basic needs (shelter, food, clothing, transportation, etc.) and should spend a set amount of their salaries for those needs. The remainder of their salaries may be saved or spent for "wants."

28. OUR CLASSROOM IS OUR COMMUNITY

Organize, through cooperative planning with the students, a miniature economic system in the classroom. The possible activities for this project are unlimited. These are to be student directed activities with only a limited amount of teacher guidance. Here are a few ideas that could be used to make your miniature economic system a success. Use play money.

1. Give each student a basic pay of $5.00 to invest, spend, etc.
2. Set up situations where students can earn extra money by performing extra duties at school. (Could be used as a behavior modification project.)

28. OUR CLASSROOM IS OUR COMMUNITY (Cont'd)

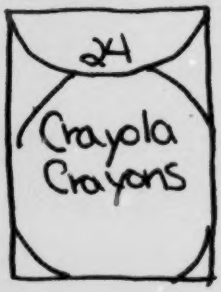
3. Have the children set up 2 or 3 banks within the classroom offering different services to attract customers.
4. Have children make products to sell.
5. Have children offer services to sell.
6. Create centers to teach the concepts of banking, profit, lending, investing, and budgeting.
7. Develop a credit service.
8. Develop an individualized checking account system.
9. Have the children do an independent study on occupations of people who work with money or of famous persons in the banking business.
10. Develop games on the concepts of handling money.
11. Take a field trip to a local bank.
12. Invite guest speakers or resource persons to the class to discuss the concepts of money management.

29. LET'S GO GROCERY SHOPPING

Have each child go grocery shopping with an adult for the purpose of checking prices of a number of items of the same type of product. Before they go, have them make a list of 5 items they want to compare. (Examples: canned corn or beans, bread, margarine, frozen orange juice.) They may need to be reminded that sizes vary so they will have to look at the weight to make sure they are buying the same size. Have them check 3 brands of the same weight for the 5 items they chose. Why are some products priced higher than others?

ADDITIONAL ACTIVITIES:

Have each student choose two items and have them compare the cost of the same brand and size in three different stores. Discuss. Have each student compare the cost of an item that can be purchased in several ways, fresh, frozen, canned, powdered, etc. (e.g., orange juice, detergent, bakery products, etc.).



APPLICATION

30. TODAY IS "NO MATH DAY"

Proclaim today "no math day." The students are not to use math for anything they do that day. That means you cannot tell them what pages their lessons are on, they are not to look at the clock, they should not keep score on the playground, they cannot count out milk money, etc. At the end of the day discuss what it was like. What would it be like at home and in places of business if no one was allowed to use math skills?

31. SALESPERSON NEED MATH SKILLS

Often ability tests are given to prospective salespersons. ACTIVITY PAGE 147 is designed to familiarize students with one type of test given to people who are being considered as salespersons.

It is advisable to read the introductory paragraph of the activity page with the students.

KEY

1. $29.88
2. $30.97
3. $2.03
4. $3.50
5. $84.37
6. $107.22
7. $9.33
8. $6.12½ or $6.13
9. $7.50 discount
10. $9.81
11. C

32. ACCURACY IS IMPORTANT

Use the student ACTIVITY PAGE 149 to emphasize that accuracy in math skills is very important to salespersons.

32. ACCURACY IS IMPORTANT (Cont'd)

KEY

1. $100, the amount in the cash register
2. $15.39 bill for goods
3. $.77 tax
4. $16.16 bill, plus tax
5. $3.84 change received
6. $244.68 total cost including tax
7. $45.55 total cost including tax
8. $41.00 total cost including tax

33. COMPETITION MAKES A DIFFERENCE

This activity is designed to help your students become aware that competition is essential in market economy, that it gives newer and better quality goods at reasonable prices, and encourages producers to look for more efficient ways of improving and producing their products. Your students will need several sheets of plain and colored construction paper, paste, crayons and scissors.

Divide the class into groups of three or four (at desks). Explain, "We are going to pretend to be the owners of donut shops (each group is a separate business firm). Now, as you know, business people watch very carefully what other business people who sell the same thing they sell are doing. Why do you think this is so?" Discuss. "In playing this game, you are to watch very carefully what my business does and decide what you would do to stay in business." Place a sign, such as, "Scrumptious Donuts," on the front of your desk. Students should respond by thinking of company names and making signs for their groups. "Watch me." Put up a sign: "One Dozen Donuts for 60¢." Student responses may imitate or list a higher or lower price. Discuss, if appropriate.

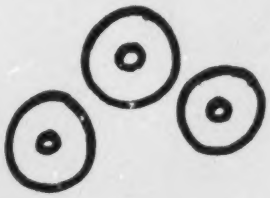
Place a sign: "Plain and Sugar Donuts." Students respond by changing their signs. Continue in the same way, with other variations pertaining to price, quality, quantity, or an additional bargain of some type (free coffee, surprise gift with every box, etc.).

Questions for Discussion:

1. How do producers of goods and services compete?
2. Why do stores compete with prices?

33. COMPETITION MAKES A DIFFERENCE (Cont'd)

3. What happens as a result of this competition?
4. What are some products or services advertised on television? Who buys these products and services?
5. Why do business people watch very carefully what other business people are doing?
6. Tell, for example, why many people buy more hamburgers at certain drive-ins, compared with going to restaurants?



34. THREE PIECES MAKE A SQUARE

Take one piece of 15 cm x 15 cm construction paper for each three students in the class. These pieces must be all the same color. Cut each square into three pieces but make sure that the shapes are all very distincitively different. Mix the pieces and give one piece to each person. Each student tries to fit his or her piece of the puzzle to the other two pieces to make the 15 x 15 cm square. Discussion follows indicating how the students worked out the process. They may discover that things were hectic at first but calmed down as people organized.

PROBLEM SOLVING

35. I NEED NEW TIRES

Have your students pretend they are service station attendants. To help them understand that service station attendants need math skills, give them various story problems. As service station attendants:

1. Have them figure change for a customer.
2. Have them write out a charge ticket using 5% tax.
3. Have them total the credit card tickets to send to the bank for payment.
4. Have them check out the cash register at the end of the day.

35. I NEED NEW TIRES (Cont'd)

(This means knowing the amount started with at the beginning of the day, and total cash sales. What was the total of the cash sales for the day? What was the total of the charge sales? What was the grand total for the day?)

5. Have them count the amount of $20, $10, $5, and single bills. Have them count the amount of silver, $.50, $.25, $.10, $.05, and pennies.

36. CARPENTERS USE MATH

Give your students story problems that will help them appreciate and understand that carpenters must use math skills in their work. As carpenters:

1. Have them compute the cost of putting a fence around a garden.
2. Have them find the surface area of a wall with windows.
3. Have them find the number of tiles needed to tile your classroom floor and then find the cost.
4. Have them outline the steps in house construction from building the foundation, frame, roof, siding, to the finished work.

37. BLOW THE WHISTLE, COACH!

Give your students story problems that will help them appreciate and understand that coaches use math skills. As coaches:

1. Have them figure out how many feet it is around a baseball diamond.
2. Knowing how many feet a batter can run in a second, have them figure out how much time it will take a batter to run to first, second, third and home.
3. Knowing the number of times a football player carried the football and the average yards gained per carry, have them figure out how many yards the football player gained for the entire season.

37. BLOW THE WHISTLE, COACH! (Cont'd)

4. Have them figure a bowling team's average score for one game and 3 games.
5. Have them figure the average number of points scored by each basketball player for the season. Figure the average number of team points per game.

38. FARMERS AND HOME OWNERS USE MATH

Have your students complete the story problems on ACTIVITY PAGE 151 to help them appreciate that farmers and homeowners use math skills.

KEY

1. 14,688 square meters
2. 70 square meters
   2 liters of paint needed
   $9.58 cost
3. 12 square meters
   3 boxes needed
   $11.04 cost
   $11.59 total cost
4. 10.5 square meters needed
   $51.98 cost
   $54.06 total
5. 4 rolls needed
   $17.00 cost

39. KEEP ON TRUCKING

Give your students story problems that will help them appreciate and understand that truck drivers use math skills. As truck drivers:

1. Have them map out a route which requires them to deliver goods to several cities. If possible get some city maps so they can plan their city routes also.
2. Have them figure out how much time it will take them to get from city to city going at a certain speed.

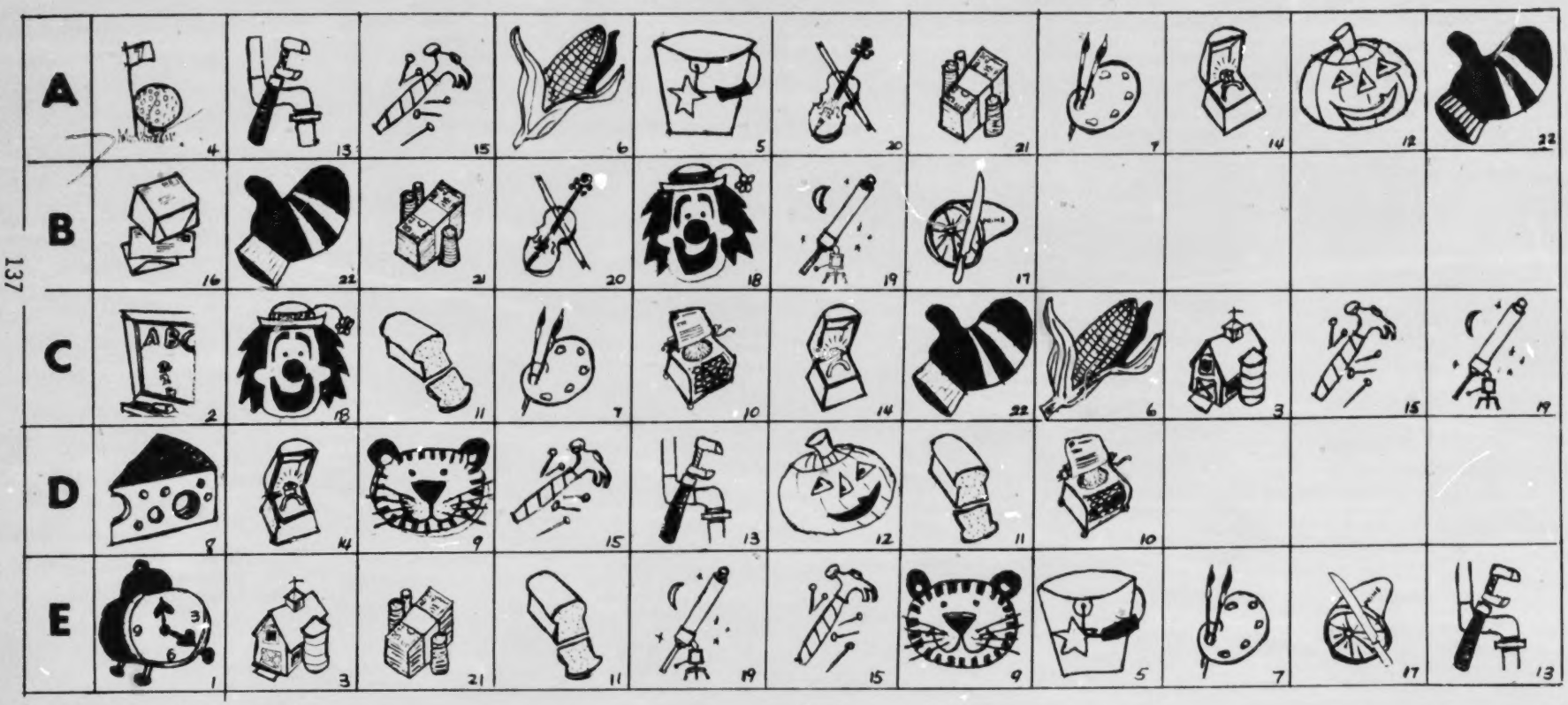
39. KEEP ON TRUCKING (Cont'd)

3. Have them figure out how much gas they will use and where they will have to stop to fill up their gas tanks.
4. Have them keep log books.

Magic Occupations, Tools, Products

INSTRUCTIONS TO SUBJECT: Choose one of the pictures below. Do not say which picture it is -- only say the rows in which it appears, A, B, C, D, or E. It may appear in one, two, three or four different rows.

INSTRUCTIONS TO MAGICIAN: In the first up and down (vertical) row you will see the numbers 4, 16, 2, 8, 1. When the "subject" has told you the rows in which the picture appears, add up these numbers next to the letter. Do this silently. For example: If your "subject" said the picture he or she had in mind was in rows B and E, the magician would look at B which has a 16 in the first picture and E which has a 1 in the first picture. Add these two together which is 17 and look until you find a picture that has a "17" in the lower corner. Report that the product selected was a "ham," the product of a butcher.



Adapted from Puzzle Power published by Scholastic Book Service

ACTIVITY PAGE

If you unscramble the letters of these materials and tools, you can learn the name of the person who uses them. Place the letters that fall in the squares on the line across the bottom.

SEHCIL □_ _ _ _ _ Used to cut grooves in wood.

MAHREM _□_ _ _ _ Used to hit nails.

AWSPRI □_ _ _ _ _ Used to cut boards the long way.

NEPAL □_ _ _ _ Used to shave wood to make it smooth.

BUMREL _ _ _ _□_ Material used to build houses.

LANI □_ _ _ Used to fasten wood together.

SORSCTUC AWS _ _ _ _ _ _□ _ _ _ Used to cut wood the short way.

HASWESRO _ _ _ _ _ _ _□ Used to lay wood on when sawing by hand.

RILDL _□_ _ _ Used to cut holes in wood.

This person who uses these tools and materials is called a

_ _ _ _ _ _ _ _ _ _

ACTIVITY PAGE

Unscramble the metric measures.

LENGTH

LIMREILETM _ _ _ _ _ _ _ _ _ _

RETNECEMIT _ _ _ _ _ _ _ _ _ _

TEMRE _ _ _ _ _

LIKORETME _ _ _ _ _ _ _ _ _

VOLUME

BUCCI/CEDIREMET _ _ _ _ _ / _ _ _ _ _ _ _ _ _

CIBUC/NECMITRETE _ _ _ _ _ / _ _ _ _ _ _ _ _ _

LIMLIRLITE _ _ _ _ _ _ _ _ _ _

TERIL _ _ _ _ _

BICCU/EMRET _ _ _ _ _ / _ _ _ _ _

WEIGHT

MARG _ _ _ _

MILKORAG _ _ _ _ _ _ _ _

LMIRLAMIG _ _ _ _ _ _ _ _ _

TEMPERATURE

EDEGER/SELICUC

_ _ _ _ _ _ / _ _ _ _ _ _ _

SPEED

RILKOMEET/REP/RUOH

_ _ _ _ _ _ _ _ / _ _ _ /

_ _ _ _

Name 5 objects:

longer than a meter

shorter than a centimeter

shorter than a meter

longer than a millimeter

longer than a centimeter

shorter than a millimeter

ACTIVITY PAGE

WORK RECORD			
Day	Work Description	No. of hours worked	What you earned at $2.30/hour
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
		TOTAL	

Questions:

1. How many hours did you work in all? _____
2. How much money did you make in all? _____
3. How many hours did you work on Saturdays? _____
4. How many hours did you work on Fridays? _____
5. Did you work more hours the first week or the second week? _____
   How many more hours? _____
6. Make a list of the things you would like to buy with the money you have Received (savings, food, clothes, gifts, help mom and dad).

ACTIVITY PAGE

BIG FEATHER CHICKEN SHOP

Menu

2 pieces chicken	.75	Roll with butter	.15
3 pieces chicken	1.05	small coke	.20
2 pieces chicken, 2 pieces fish	1.50	large coke	.35
small french fries	.30	jelly roll cake	.50
large french fries	.45	pie	.55
		small cole slaw	.30
		large cole slaw	.45

1. Order 3 items at the Big Feather Chicken Shop. At this restaurant, the customers write down their orders on order forms similar to the one below:

2. How much money would you get back if you gave the cashier a $5.00 bill? _____

3. Exchange orders with a neighbor. Now you are the cashier. Check to see if this customer has added the bill correctly. Check again the prices that person gave from the menu.

4. Add the bills for two of your friends' lunches with yours.

   _____ bill was $ ____.

   _____ bill was $ ____.

   My _____ bill was $ ____.

   Total for the 3 of us $ ____.

5. John's family just had company drop in unexpectedly. He has come to your Big Feather Chicken Shop to get food for the group. He is ordering the following:

   30 pieces chicken (3 for $1.05)
   10 large french fries
   15 rolls with butter
   8 large cokes
   2 small cokes
   4 jelly rolls
   6 pieces of pie

   Figure his bill. He owes $ ____ for the food

BIG FEATHER CHICKEN SHOP

Order Form

Item	Cost	
Sub-Total		
5% Tax		
Total		

Discuss these ideas:
- -When are restaurant workers needed most during the day?
- -How much do restaurant workers earn?
- -What are some of the advantages of working in a restaurant?
- -What are some of the disadvantages of working in a restaurant?
- -What are some of the skills you must have to work in a restaurant?
- -Would you like to work in a restaurant?

ACTIVITY PAGE

Millie is a girl who has decided to work in retail sales business. She wants to be a department store clerk. She also found that starting salaries ranged from $2.30 to $2.60 an hour, and that seemed to fit in with what her friends were earning in other jobs at this level.

She found that there are some disadvantages, such as weekend work, and extra work before holidays. She discovered a benefit, in that clerks received a discount on products purchased, that most get a commission on what they sell and that there seemed to be a good future for the person who does well. Millie found the following ad in the evening paper:

> SALES
>
> We have several schedules for daytime and evening sales openings. No experience required, and immediate openings. Apply Personnel Office Dayton's Department Store.

Millie called and arranged an appointment for an interview. Upon her arrival she was asked questions about her educational background and any previous experience. She took the following test:

1. $\begin{array}{r} 7.89 \\ 11.00 \\ +10.99 \\ \hline \end{array}$

2. $\begin{array}{r} 1.29 \\ .39 \\ 27.50 \\ .79 \\ +\ 1.00 \\ \hline \end{array}$

3. $\begin{array}{r} 10.00 \\ -\ 7.97 \\ \hline \end{array}$

4. $\begin{array}{r} 20.00 \\ -\ 16.50 \\ \hline \end{array}$

5. $\begin{array}{r} \$6.49 \\ \times 13 \\ \hline \end{array}$

6. $\begin{array}{r} \$17.87 \\ \times\ 6 \\ \hline \end{array}$

7. 1/3 x $27.99 =

8. 25% of $24.50 is _____.

9. A 20% discount on $37.50 = _____.

10. Three items @ $3.27 is _____.

11. A good place to get additional information about specific jobs in the sales area would be:

    a. A dictionary

    b. A college catalog

    c. The Occupational Outlook Handbook

    d. An encyclopedia

ACTIVITY PAGE

Millie satisfactorily completed the interview and the pre-employment test and was conditionally hired. On her first day of employment, she was assigned to the bedding and linens department. There she was trained by the department supervisor.

One of her first duties was to check the amount of cash on hand in the register. The register contained:

1. 1 twenty — 10 quarters
   3 tens — 12 dimes
   6 fives — 25 nickels
   15 ones — 5 pennies

   Total amount in register $_____

Soon after the store opened, a customer approached Millie wishing to make some purchases. She bought:

2. 2 pillow cases, 2 for $2.39
   2 sheets, $6.50 per sheet
   The customer's bill for the goods came to $_____.

3. A five per cent sales tax had to be added to her bill.
   The tax was $_____.

4. The goods plus the tax came to _____.

5. The customer handed Millie two, $10.00 bills and received_____ change.

There are three additional problems involving items and sales tax:

6. 1 mattress pad $10.28
   1 mattress and inner spring $205.99
   2 pillows $6.25 each
   2 pillow cases 2 for $4.26
   Find cost -- include tax (5%) Total _____

7. 6 sheets 2 for $2.83
   1 bedspread $34.89
   Find cost -- include tax (5%) Total _____

8. 1 bedspread - twin size $15.61
   4 sheets @ $1.62
   3 pillows @ $3.48
   1 mattress pad $6.52
   Find cost -- include tax (5%) Total _____

Credit #3

SCIENCE
SPRINGBOARDS

SOUND

1. HOW WELL DO YOU HEAR? - SOME JOBS DEPEND UPON YOUR HEARING, SOME DON'T

   If a part of the ear has been damaged by illness, accident or a birth defect, a person may not hear well. The eardrum cannot vibrate as it should if there is a hole in it, if it is split, or if it is not shaped as it should be. Sometimes the three little bones do not vibrate as they should to send messages to the auditory nerve and the brain.

   Discuss jobs which require workers who hear very well (doctors, orchestra leaders, telephone operators, air traffic controllers, surgical assistants, stenographers).

   Hearing disabilities are being overcome every day. What kind of jobs could people with hearing disabilities do as well as anyone else (e.g., writers, scenic photographers, window washers, brick masons, researchers, clothing construction workers, scientists, painters, key punch operators, bookkeepers, etc.)?

   Some jobs are near loud sounds which may cause damage to the ears if protectors are not worn to block the sound waves. What are some of these jobs? (e.g., jet airline service persons, sawmill workers, pulp mill workers, chain saw operators, etc.)

   If any of your students wear hearing aids perhaps they would let the rest of the students hold them to their ears to hear how the sound is magnified. Many workers with hearing disabilities can do anything a person with normal hearing can do with the help of an aid. How does a hearing aid work? Invite a hearing aid specialist to come to your class to explain how the sound is magnified and changed so that the wearer can hear. What are some other workers who work with hearing problems? (e.g., audiologist, ear surgeon, speech therapist, etc.)

1. HOW WELL DO YOU HEAR? - SOME JOBS DEPEND UPON HEARING, SOME DON'T (Cont'd)

Invite your school district audiologist (if you have one) to come to class to explain the tests and the equipment used for testing hearing.

2. YOU MEAN SOUND WAVES ARE LIKE SPRINGS?

To have your students become aware that the knowledge of sound waves is important to many people in their occupations demonstrate how sound waves occur. Talk about how people use sound waves in their jobs.

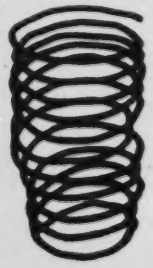
Get a spring (such as slinky) from the toy store. Hook one end over the back of a chair. Bunch up some of the coils in your hand. Release the bunched up coils, watch the bouncing back and forth between your hand and the chair until the energy in the coils has been used up.

Sound waves bounce back (reflect) like the movement in the recoiling springs. You can hear these movements easily in an empty room (echoes). If there are soft objects in the room, you do not hear the echo because the sound waves are absorbed.

Why do the following people need to know about sound waves:

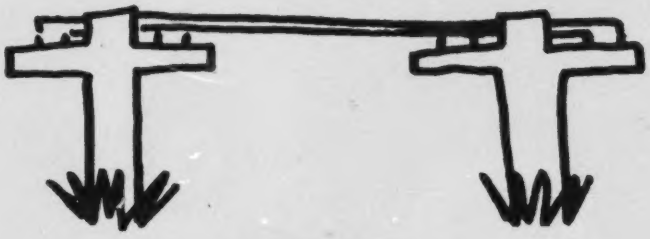
1. Aircraft builders
2. Hospital builders
3. Accoustical tile manufacturers
4. Musical instrument designers
5. Radio and TV mechanics
6. Radio and TV designers
7. Radio and TV manufacturers
8. Theater and concert hall architects

Do your parents need to know about sound waves in their jobs? Do you need to know about sound waves in your home? Why?



3. HOW CAN YOU TELL TELEPHONE WIRES FROM ELECTRIC WIRES?

Ask a representative from the telephone company to come to class and demonstrate the working of a telephone and the inside parts. Ask the worker to explain how the wires connected to the phone work, how the equipment at the phone company works, and what the workers at the telephone company do. Perhaps you could have the worker trace a phone call from one student to another, from the point of dialing to ringing in another home. Be sure to have the telephone worker stress that no wires are safe, and therefore, the children should not touch wires of any kind.



MOTION/REST

4. WHERE IS THE SOURCE OF THAT ENERGY?

Workers use kinetic and potential energy in their jobs. Have the students think about the two kinds of energy: kinetic energy (the energy of moving things) and potential (stored) energy. Kinetic energy is energy things have because they are moving. The faster things move and the more they weigh, the more energy they have. Potential energy is energy that has been stored in something such as a bent bow, a stretched rubber band, or a wound clock spring. What workers use kinetic energy in their jobs? What workers use potential energy in their jobs?

How do the following workers use kinetic and potential energy?

1. An auto repairperson
2. An electrician
3. A dentist
4. A farmer
5. A road builder
6. A railroad engineer

5. THAT STAKE IS THE NORTH BOUNDARY

Ask a surveyor to bring surveying equipment into your classroom and demonstrate the pieces to your students. If the surveyor is willing,

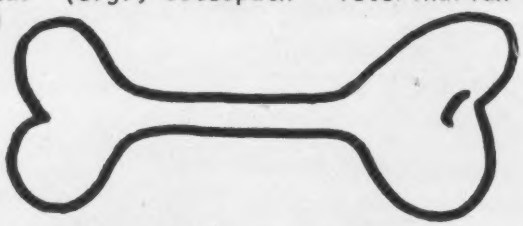
5. THAT STAKE IS THE NORTH BOUNDARY (Cont'd)

have your students learn how to operate the equipment. Then, with the surveyor's help, measure the school grounds and decide where the boundaries are. All measurements are to be in metric. Ask the surveyor to name advantages and disadvantages of the job, training needed, cost of the equipment, and the demand for surveyors. Allow time for your students to ask questions.

HUMANS

6. THAT'S A COW BONE, I THINK

Ask at the meat processing plant if the workers will save you some cow, lamb, pig, chicken, and turkey leg bones. Saw them in half. Notice how the bones are composed. Make a class list of their individual characteristics. As you talk about bone structure, have the students name all the occupations which would be concerned with knowing the composition of bones, keeping bones healthy, and producing healthy animals. The list will become longer as the students get the idea. (e.g., osteopath - veterinarian - dietician - food producers.)

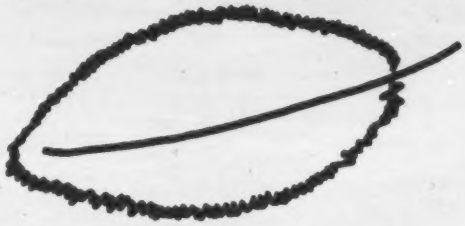


7. WHERE IS THE LEAF? IT WAS HERE LAST WEEK

Have the students collect litter from around the neighborhood. Categorize items that have been thrown away: plastic, glass, food particles (orange rinds, banana peels, apple cores), paper, metal, wood, and leaves. Find a large cardboard box and line it with a plastic garbage bag. Fill the bag with dirt. Bury one item from each classification and water the dirt to keep it moist. Check at the end of each week for 6 weeks to see which items decompose. Keep a scientific record. What workers need to know about things that de-

7. WHERE IS THE LEAF? IT WAS HERE LAST WEEK (Cont'd)

compose? (e.g., farmers, gardeners, botanists, landscapers, etc.) Why?



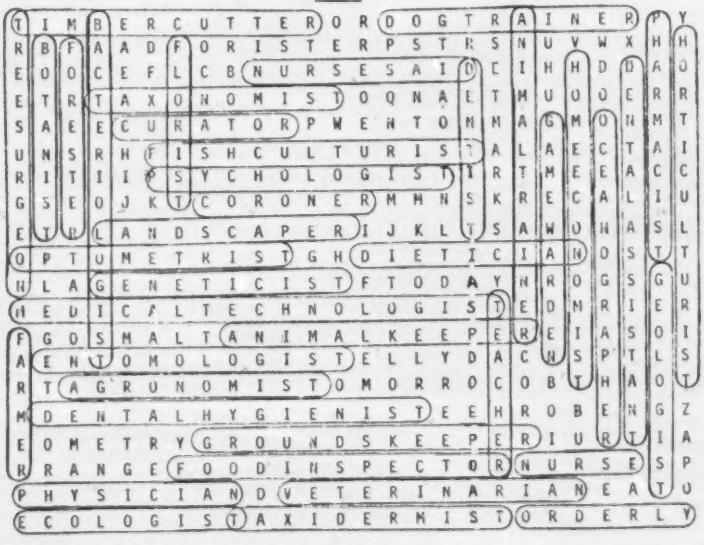
8. HOW HAVE THINGS CHANGED IN THE LAST TEN YEARS?

Have each of the children interview a worker who has been working in the same place ten years or more. Ask the worker to cite examples of how technology and scientists have changed working conditions there. How has technology changed the job itself? The student might ask the worker about tools or equipment, working hours a week, number of workers, types of materials used, quality of product, etc. Have the children draw some conclusions as to the effects that science and technology have had on work and the worker.

9. A SCIENTIFIC PUZZLE

Forty jobs, which are science-oriented, are to be circled on ACTIVITY PAGE 173. Talk about the duties of these occupations after the students have completed the puzzle.

KEY



10. I'M THINKING OF A SCIENCE OCCUPATION THAT ....

Invite the children to assist you in developing a set of career riddles. Begin each riddle by indicating the broad occupation classification such as:

1. "I'm thinking of a worker who studies insects..."
2. "I'm thinking of a worker who examines foods ..."
3. "I'm thinking of a worker who helps animals ..."
4. "I'm thinking of a worker who takes care of plants ..."
5. "I'm thinking of a worker who checks the weather..."

Then continue giving hints by telling something about the job location, something about the working conditions, something about the type of person who can work at that job, etc. Write the hints on cards. Number and color code the cards to make them usable for groups of children or for individualized activities. (Perhaps older students might make cards for younger children.)

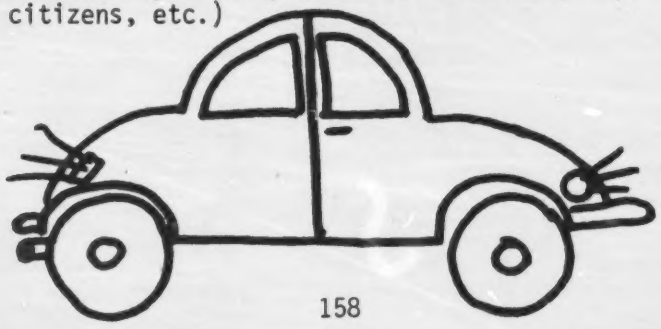
After the students have identified the career, ask how many of them would enjoy that occupation and how many would not prefer it.

11. NOW TELEPHONE SERVICE IS THE SAME, OR IS IT?

Discuss the technological advancements that have recently taken place in the United States. Think of the changes that have taken place and which will continue to occur. Make four columns on the board, For example:

OBJECT	PAST	PRESENT	FUTURE
1. Cars	Crank Model	Sleek Lincoln Continental	Solar-run Cadillac Streamliner
2. Food	Fresh	Canned & Frozen	Freeze Dried

What workers are responsible for changes taking place? (e.g., ecologists, scientists, various product promoters, efficiency experts, analysts, concerned citizens, etc.)

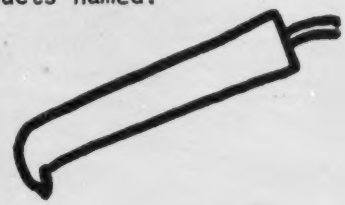


12. THINGS WILL NEVER BE THE SAME

Have the students read stories or books about scientists or inventors. They might write short reports, including an illustrated time line to the present or give short oral reports to illustrate how each person's work has changed the world for the rest of us. Have the children suggest how things might be now without the particular invention. Describe some needs we have now which could be corrected with a new scientific invention. They may think of: food pills to solve the world hunger problems, cure for cancer and heart disease, energy which leaves no pollution and has no danger of being depleted, a car which has an anti-collision device. Once started the children will have many ideas. Continue to draw into the discussion reasons why such inventions have not been developed yet.

13. SCIENTIFIC WORKERS, TOOLS, PRODUCTS

To help students verbalize scientific jobs, list workers, tools and products on ACTIVITY PAGE 175. After they complete the activity discuss the different workers, tools and products named.



14. WHICH SHOULD BE GREATER - SUPPLY OR DEMAND?

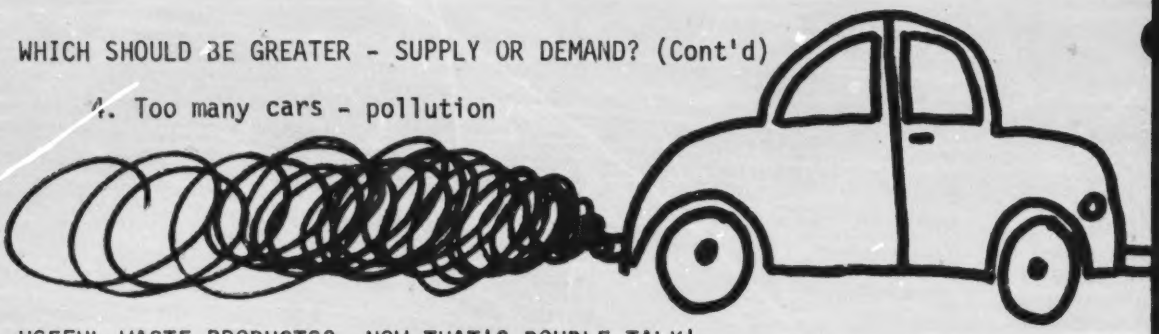
Talk about supply and demand. Why are science-oriented people concerned with being knowledgeable about the changes in supply and demand? Talk about pertinent problems such as over-population, food production, disease control, and preserving natural resources. Who controls supply and demand? What can be done to balance them? Talk about government commodities, exports, imports, price controls, import-export taxes, ecological concerns, etc.

You might want to collect pictures from magazines and make a collage to illustrate supply and demand ideas. For example:

1. Abandoned buildings - destruction of countryside
2. Flood control - lakes and dams - flooded villages and fields
3. Too many people - not enough housing

14. WHICH SHOULD BE GREATER - SUPPLY OR DEMAND? (Cont'd)

4. Too many cars - pollution



15. USEFUL WASTE PRODUCTS? NOW THAT'S DOUBLE TALK!

Have your students think of all the ways waste products are used. Encourage them to name the less obvious ones. You might make a few suggestions to encourage their thinking by asking:

1. How is hash made?
2. What are pressed logs for the fireplace made from?
3. Have you seen a picture made from strips of tin cans?
4. What is used to make patchwork quilts?
5. How is glue made?
6. Have you eaten watermelon rind pickles?
7. Are wrecked cars ever reused?

There are many more. Make a list which can be added to as the children think of new re-cycled items. What workers spend their whole day making new products out of used parts? Are there workers who try to discover new ways to use waste products? Who are they? Why is recycling important? How can we all help?

LIFE

16. AND I CAN GET ALL THIS FOR LESS THAN TWO DOLLARS?

Obtain or draw pictures of a hamburger, french fries, and a milkshake. (You may want to get the real objects.) Talk about the origin of each item. Have your students name all the workers they can think of that helped in some way to make and get these three products to the restaurant that sell them.

17. WHO INVENTED THAT?

Have your students bring in pictures and models of common objects (can opener, car, lawn mower, telephone, etc.). Investigate the evolution of each object, how it came about, who invented it, how it has changed since it was first invented, and how it has changed our lifestyles.

18. THE WATER IS ALL MUDDY WHERE THERE WASN'T ANY GRASS

To help students understand that workers need to know about soil erosion, do a demonstration using two flat containers with good top soil in each. In one flat plant rye grass seed and let it grow to get well-established. After 4 weeks or when there is a good stock of grass, tip both pans at about a 20^{o} angle. Pour a quart of water over each. How does planting grass prevent soil erosion? Also discuss the processes for protecting grasslands, forests, and water supplies. What workers are involved with preventing soil erosion? (e.g., forest rangers, lumber production workers, farmers, agronomists, livestock owners, weed controllers, plant scientists, etc.)

19. I GUESS, A TEACHER NEEDS A GOOD LOUD VOICE

Have one student lie down on a large piece of paper. Trace around the body with a black marking pencil. Then as you point out each part of the body, have the students think of occupations which really need that part of the body in order to do a good job. For example:

1. Legs - professional football player, letter carrier, delivery person
2. Hands - secretary, shoe factory worker, welder
3. Brain - researcher, inventor, teacher, scientist
4. Larynx - minister, lawyer, actor

Do the same for ears, eyes, nose, fingers, etc.

19. I GUESS, A TEACHER NEEDS A GOOD LOUD VOICE (Cont'd)

Then name various occupations and decide which part of the body is especially needed for that occupation.

20. FROM WIRELESS TO RADIO, TO TV - WHAT NEXT?

Trace the development of an invention (e.g., sewing machine, communication instrument, stage coach, pony express, wireless telegraph, etc.). Explain how these inventions created jobs and helped society. Make a mural for each invention showing the changes that have taken place through the years. Be sure to find out who the inventors were. Tell a little about their lives and the reasons they had for trying to make improvements on previous inventions. What kind of a person is an inventor? What other people besides inventors need these same restless, creative, progressive minded qualities? (e.g., clothes designers, designers of all kinds, ecologists, educators, etc.)

21. TOOLS FOR SCIENCE-RELATED OCCUPATIONS

A number of tools used by workers in science-related occupations are given on ACTIVITY PAGE 177. Getting students to think about tools helps them to think a bit more deeply about that career. Discuss how each worker uses the tool.

KEY

1. I	5. H	9. J
2. A	6. C	10. G
3. B	7. F	11. E
4. D	8. K	12. L

22. MEDICAL PEOPLE AND THEIR JOBS

There are a lot of titles for a lot of different medical people. All are helping people to get well or helping people stay well. To help the students understand the specialized jobs various medical people have, a matching activity can be found on ACTIVITY PAGE 179. The students may need a dictionary to look up some of the occupations listed. This list may also serve as a vocabulary and spelling list.

KEY

1. c	6. g	11. k	16. q
2. e	7. f	12. m	17. r
3. b	8. j	13. l	18. s
4. a	9. h	14. o	19. t
5. d	10. i	15. n	20. p

23. QUIET, ASTRONOMER AT WORK

Take empty pop cans. Remove the tab end of the cans. In the opposite end, with hammer and nails, poke holes to form various constellations. Hold the can toward the window or light and look through tab hole end. Students will be able to see clearly what each constellation looks like and will be able to locate it in the sky more easily. Discuss the work of an astronomer. What kind of a person becomes an astronomer? (e.g., one who likes to work at night, likes to work alone or with a few people, one who has mathematical as well as scientific awareness, one who is patient and can wait for certain events to happen, etc.)

24. THE MAIL MUST GO THROUGH

Some workers have to deal with all kinds of weather. They must work all day long in very cold temperatures as well as when it is extremely hot. Put up a Celsius and a Fahrenheit thermometer outside the classroom window. Give each child a copy of ACTIVITY PAGE 181, "Two Kinds of Thermometers." At 9:00 AM and again at 2:00 PM, have the children read each thermometer and record the temperatures. Graph the information.

24. THE MAIL MUST GO THROUGH (Cont'd)

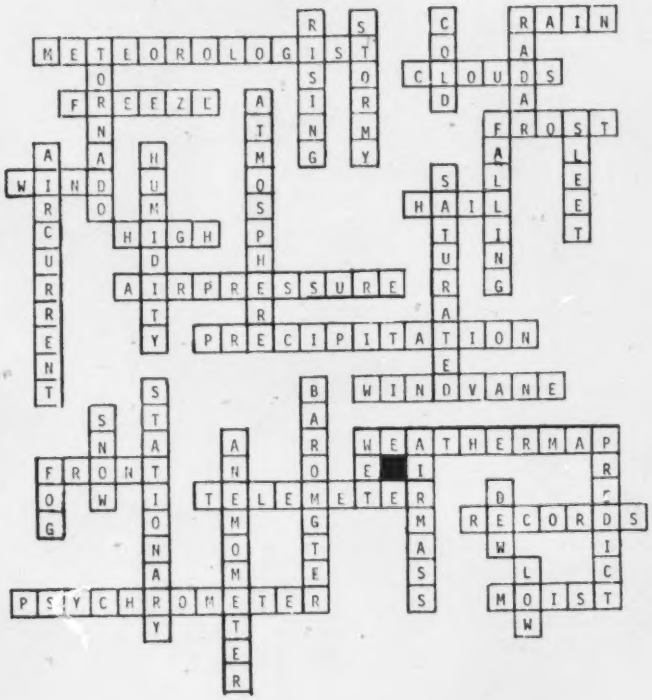
How has the weather changed during the month?

Name workers who work outside in all kinds of weather. (e.g., police officers, road sanders, doctors, power line workers, mail carriers, paper carriers, milk delivery persons, etc.) Talk about how they must dress for the weather. If weather is a big disadvantage, what are some of the advantages?

25. WEATHER WORDS AND MORE WEATHER WORDS

For an activity to bring to the student's mind weather vocabulary, see ACTIVITY PAGE 183. These words could be used for a vocabulary list as well as a spelling list.

KEY



26. ONE GOES UP AND ONE COMES DOWN

One task for meteorologists is to record the temperature as well as the air pressure. Note how usually as the air pressure rises, the temperature drops. Each day at the same time, have the students make recordings of both the thermometer and barometer readings. You might use a chart like the one on ACTIVITY PAGE 185.

Discuss how weather affects many jobs. By watching the barometer, people can foresee weather changes approaching. Name some jobs where keeping close watch on the weather is important. (e.g., air traffic controllers, citrus growers, sea travelers, hay harvesters, cotton growers, athletic directors, golf tournament directors, etc.)

27. THE METEOROLOGIST PREDICTED RAIN BUT IT SNOWED A FOOT

Have the students be meteorologists. Set up a weather station outside the classroom. Place, where they can be easily viewed, a thermometer, a rain gauge and a wind gauge. Keep a record such as this one for one month.

DATE	DESCRIPTION OF SKY	TEMPERATURE			MOISTURE		WIND	
		9 AM	12 PM	3 PM	TYPE	AMOUNT	FORCE	DIRECTION

If you do not have weather equipment, use weather reports from the radio or TV. Observe TV meteorologists and discuss why their forecasts are not always correct. How does the local meteorologist get information from all over the country? How is information sent by the local stations to other parts of the country? You might want to take a field trip to your local weather station to observe and interview the meteorologist on the job.

28. CHARCOAL IS MADE TO BURN BUT IT IS HARD TO LIGHT

To help students understand that some workers need to be concerned with flammable characteristics of materials, do this experiment.

In a container, try to burn these materials:

1. Cotton
2. Wool
3. Styrofoam
4. Charcoal
5. Plastic wrap
6. Fabrics described as non-flammable
7. Nylon
8. Leather

What happened when you tried to burn each of the materials? Which ones burned fast? Which ones burned slowly? Which ones did not burn at all? What kind of products are made out of each one? What kind of workers need to know about the flammable characteristics of these materials? (e.g., cloth manufacturers, garment workers, upholstery workers, cup manufacturers, sleeping bag manufacturers, etc.) Why do they need to know about these flammable characteristics? What would happen if they did not know?

29. A GREASE FIRE IS MUCH DIFFERENT FROM A GRASS FIRE

To help students become aware of the different methods of putting out fires, and the work of a firefighter, ask a firefighter to come to class with extinguishers to explain why and how the different methods are used. Talk about the different causes of fires. (e.g., oil, gas, electricity, combustion, etc.) With the help of the firefighter start fires with the different causes and then have the students put them out using the correct method. Why did they choose to use that particular method? What was the scientific reason? What part does oxygen play in a fire? What are the various circumstances when one method would be preferred over another? Allow time for the students to ask the firefighter questions pertaining to job duties and responsibilities.

USE OF SCIENTIFIC METHODS

30. LET'S HAVE A BAKE SALE!

Some workers need to organize their thoughts before starting work. Select some activity where the class will work together. An activity might be selling cookies at noon. The students should select jobs and then determine immediate, short, and long-range goals. The class will then decide step-by-step procedures as to how these goals will be achieved. What workers can you think of who need to decide step-by-step procedures before they begin work? (e.g., cooks, manufacturers, secretaries, etc.)

31. IS A SHEEP A LARGE ANIMAL OR A SMALL ANIMAL

Give to groups of students a list of 20 animals and ask them to categorize the animals four or five different ways. The groups are to decide which way they each will categorize the animals. One group might decide on such categories as these: large and small; good and poor eyesight; climbers and non-climbers; fast and slow movers; carnivorous and herbivorous. Compare the various ways they choose to make their classifications, and discuss how this method serves as a tool for scientists. Also discuss how there must, in many cases, be a specified measure (e.g., large might mean heavy or tall,) so some basis must be established which researchers and readers understand.

32. FIRST, YOU PICK UP THE PENCIL

In pairs, have the students think of some simple task. One such task might be sharpening a pencil. They are to write every step for accomplishing the task. Be sure to leave no part undone. For example:

1. Pick up pencil.
2. Observe that it needs sharpening.
3. Visually locate pencil sharpener.

32. FIRST, YOU PICK UP THE PENCIL (Cont'd)

4. Walk to pencil sharpener.
5. Place pencil in sharpener.
6. Turn handle to sharpen.
7. Remove pencil from sharpener.
8. Determine if pencil is sharp. If no, go back to step 5. If yes, proceed to step 9.
9. Visually locate seat.
10. Walk back to seat and sit.
11. Write.

Some suggested tasks for the students to itemize might be:

1. Getting a drink
2. Tying shoes
3. Answering the phone
4. Buying a soda from a machine
5. Finding a special program on TV
6. Watering plants
7. Warming a can of soup
8. Hitting a double (Baseball)

Discuss how itemizing or making a task flow chart is a part of all of us. In learning how to do anything, one goes through a step-by-step procedure. A person is more or less successful according to how well the steps are planned and how carefully they are followed. Talk further about how new discoveries are made by itemizing procedures and organizing thinking.

33. MY LIFE IS ON A TIME LINE

Beginning with birth, have the students develop a list of important events in their lives. There may be only one important event each year. Illustrations should be included to tell the complete story. Projections into the future as to what school and occupational choices a student may be thinking of might also be included.

34. THE NAME, RUDOLPH DIESEL, SOUNDS FAMILIAR

The students may read and report on one of the scientists listed below or a scientist of their choice. They should include what the scientist contributed, how it has influenced our lives and later developments that resulted.

1. Jacelyn Bell-Burnell
2. Luther Burbank
3. Rudolph Diesel
4. Michael Faraday
5. Galileo
6. James Watt
7. Margaret Burbidge
8. Dorothy Crowfoot Hodgkin
9. Albert Einstein
10. Albert B. Salin
11. Lawrence Katz
12. Karl Landsteiner
13. Louis Pasteur
14. Robert Boyle

A different format might be for the students to write a diary for the famous person. Allow the student to add to the facts, feelings, and attitudes the scientist may have had.

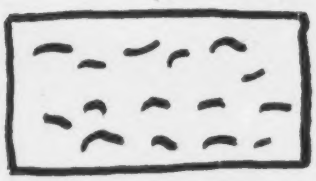
35. STR(;G MEDICINE FOR THE SUN?

Ancient people had an answer for everything. To some, an eclipse of the sun meant the sun was ill and needed some strong medicine; others explained an eclipse as an invisible animal swallowing the sun. Birthmarks and deformed babies were explained by saying that the mother must have been frightened before the child's birth. The students will be able to cite other examples of beliefs that have been disproven because scientists tested an idea over and over and then used that information to base decisions as being proof. Have the students choose a statement and prove or disprove the statement. Use the scientific method:

1. State the problem.
2. Form the hypothesis.
3. Gather the data.
4. Test the hypothesis.
5. Record the facts.
6. Review hypothesis and make alterations.

36. WHY IS IT THAT BRICK HOUSES LAST LONGER THAN WOODEN HOUSES?

Collect all the different kinds of materials used in building construction work, (e.g., bricks, lumber, glass, pipes, electrical cords, cement blocks, etc.). Discuss the density of the various materials. Why do house builders decide to use one material on some houses and another material on another house? How do different climates make a difference in building material choices? Why are builders now using more brick and fewer windows on large buildings? The decisions architects and builders make about materials are based on scientific facts. Point out other scientific facts which builders, as well as road construction workers, must keep in mind. (e.g., water drainage, soil composition, weather conditions, ease in getting materials, durability of materials, etc.)



37. LITHO - ATMOS - HYDRO - BIO -: FOUR BIG SPHERES

Workers are involved with understanding and functioning within the four spheres. An Activity Page has been developed to help students categorize and understand workers involved with each sphere. See ACTIVITY PAGE 187.

KEY

SUBSTANCES -

LITHOSPHERE	ATMOSPHERE	HYDROSPHERE	BIOSPHERE
1. Quartz	1. Clouds	1. Hail	1. Children
2. Oil	2. Smog	2. Snow	2. Trees
3. Emeralds	3. Oxygen	3. Water power	3. Pigs
4. Coal	4. Nitrogen	4. Rain	4. Bacteria
5. Fossils	5. Carbon dioxide	5. Sleet	5. Parasites

37. LITHO - ATMOS - HYDRO - BIO -: FOUR BIG SPHERES (Cont'd)

KEY

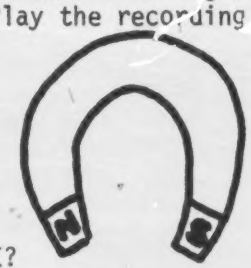
WORKERS -

LITHOSPHERE	ATMOSPHERE	HYDROSPHERE	BIOSPHERE
1. Geologist	1. Meteorologist	1. Oceanographer	1. Lumber mill worker
2. Coal miner	2. Air pollution expert	2. Dam builder	2. Farmer
3. Diamond seeker	3. Air traffic controller	3. Water tester	3. Teacher
4. Oil driller	4. Climatologist	4. Water well driller	4. Dentist
5. Archeologist	5. Weather balloon navigator	5. Scuba diver	5. Forest ranger

ELECTROMAGNETISM

38. MAGNETS ARE STRANGE BUT VERY IMPORTANT

After talking about electromagnetism, have the students name machines, objects, and tools which contain magnets. They may think of refrigerator doors, door latches, bulletin boards, motors of all kinds, doorbells, and a demolition crane. Tape record your students' voices on tape. Talk about how the tape recorder changes sounds into magnetic fields and the field "prints" the sound on tape. Play the recording "fields" back into sound waves.



39. ELECTRICITY, NATURAL GAS, NUCLEAR ENERGY, WHICH ONE?

Today electricity cannot be stored. Talk about changes in society which will likely take place if ever a method for storing electricity is discovered. Talk about when electricity was first discovered.

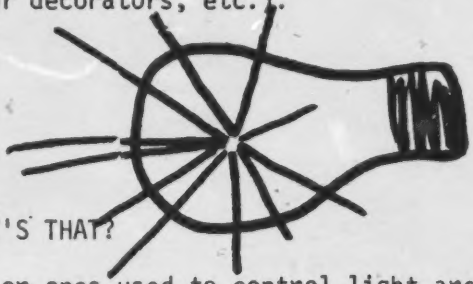
39. ELECTRICITY, NATURAL GAS, NUCLEAR ENERGY, WHICH ONE? (Cont'd)

Discuss how the number and kinds of jobs and machines have changed radically since then. What is likely to happen to jobs and machines if natural gas continues to be lacking? What kinds of resources are industries apt to turn to? What changes will this make in machines, workers, and types of industry?

LIGHT

40. COLORS ARE WHAT ATTRACT PEOPLE TO BUY

Many jobs are concerned with knowing how to use colors effectively. Some deal with mixing colors; others are concerned with combining colors so that they are appealing to the eye. Show pictures that emphasize certain colors. Cut out magazine ads. Which colors are used most often? Why? Think of jobs where colors are an important part of the job, (e.g., artists, painters, clothing manufacturers, cloth designers, models, interior decorators, etc.).



41. A DOCTOR USES AN OTOSCOPE? WHAT'S THAT?

Objects that operate with light or ones used to control light are called "optical instruments." Have the students think of as many optical instruments as they can and name a worker who uses that tool. They may mention:

1. Flashlight - miner, theater attendant
2. Otoscope (instrument to look into ears and nose) - doctor
3. Examination pen light - dentist
4. Lighthouse - ship captain
5. Beacon - pilot, air traffic controller
6. Microscope - scientist
7. Telescope - astronomer
8. Camera - photographer
9. Searchlight - police officer, firefighter

ACTIVITY PAGE

T I M B E R C U T T E R O R D O G T R A I N E R P Y
R B F A A D F O R I S T E R P S T R S N U V W X H H
E O O C E F L C B N U R S E S A I D E I H H D D A O
E T R T A X O N O M I S T O Q N A E T M U O O E R R
S A E E C U R A T O R P W E N T O N M A G M O N M T
U N S R H F I S H C U L T U R I S T A L A E C T A I
R I T I I P S Y C H O L O G I S T I R T M E E A C C
G S E O J K T C O R O N E R M M N S K R E C A L I U
E T R L A N D S C A P E R I J K L T S A W O N A S L
O P T O M E T R I S T G H D I E T I C I A N O S T T
N L A G E N E T I C I S T F T O D A Y N R O G S G U
M E D I C A L T E C H N O L O G I S T E D M R I E R
F G O S M A L T A N I M A L K E E P E R E I A S O I
A E N T O M O L O G I S T E L L Y D A C N S P T L S
R T A G R O N O M I S T O M O R R O C O B T H A O T
M D E N T A L H Y G I E N I S T E E H R O B E N G Z
E O M E T R Y G R O U N D S K E E P E R I U R T I A
R R A N G E F O O D I N S P E C T O R N U R S E S P
P H Y S I C I A N D V E T E R I N A R I A N E A T O
E C O L O G I S T A X I D E R M I S T O R D E R L Y

AGRONOMIST
ANIMAL KEEPER
ANIMAL TRAINER
BACTERIOLOGIST
BOTANIST
CORONER
CURATOR
DENTAL ASSISTANT
DENTAL HYGIENIST
DENTIST
DIETICIAN
DOG TRAINER
ECOLOGIST
ENTOMOLOGIST
FARMER
FISH CULTURIST
FLORIST
FOOD INSPECTOR
FORESTER
GAME WARDEN
GENETICIST
GEOLOGIST
GROUNDS KEEPER
HOME ECONOMIST
HORTICULTURIST
LANDSCAPER
MEDICAL TECHNOLOGIST
NURSE
NURSES' AIDE
OCEANOGRAPHER
OPTOMETRIST
ORDERLY
PHARMACIST
PHYSICIAN
PSYCHOLOGIST
TAXIDERMIST
TAXONOMIST
TEACHER
TIMBER CUTTER
TREE SURGEON
VETERINARIAN

ACTIVITY PAGE

SCIENTIFIC WORKERS, TOOLS, PRODUCTS

DIRECTIONS:

Think of jobs where the worker needs to understand scientific facts. This would include jobs which study energy, processes, materials, and living things. Write the type of a worker in the first column, a tool in the second column, and a product in the last column which begin with the letter in the first column.

	WORKER	TOOL	PRODUCT
S			
C			
I			
E			
N			
C			
E			

ACTIVITY PAGE

TOOLS FOR SCIENCE-RELATED OCCUPATIONS

MATCH THE TOOL WITH THE WORKER. YOU MAY HAVE TO LOOK SOME WORDS UP IN THE DICTIONARY.

_____1.	ROCK PICK	A.	EAR SPECIALIST
_____2.	AUDIOMETER	B.	DOCTOR
_____3.	STETHASCOPE	C.	SCIENTIST
_____4.	BAROMETER	D.	METEROLOGIST
_____5.	TELESCOPE	E.	CONSTRUCTION WORKER
_____6.	MICROSCOPE	F.	FARMER
_____7.	COMBINE	G.	PHOTOGRAPHER
_____8.	POTTING SOIL	H.	ASTRONOMER
_____9.	ASBESTOS GLOVES	I.	GEOLOGIST
____10.	LIGHT METER	J.	ELECTRICIAN
____11.	DEMOLITION CRANE	K.	NURSERY WORKER
____12.	WATER DEPTH METER	L.	OCEANOGRAPHER

HOW DO THESE WORKERS USE THE TOOLS?

EAR SPECIALIST? _____

DOCTOR? _____

SCIENTIST? _____

METEROLOGIST? _____

CONSTRUCTION WORKER? _____

FARMER? _____

PHOTOGRAPHER? _____

ASTRONOMER? _____

GEOLOGIST? _____

ELECTRICIAN? _____

NURSERY WORKER? _____

OCEANOGRAPHER? _____

ACTIVITY PAGE

MEDICAL PEOPLE AND THEIR JOBS

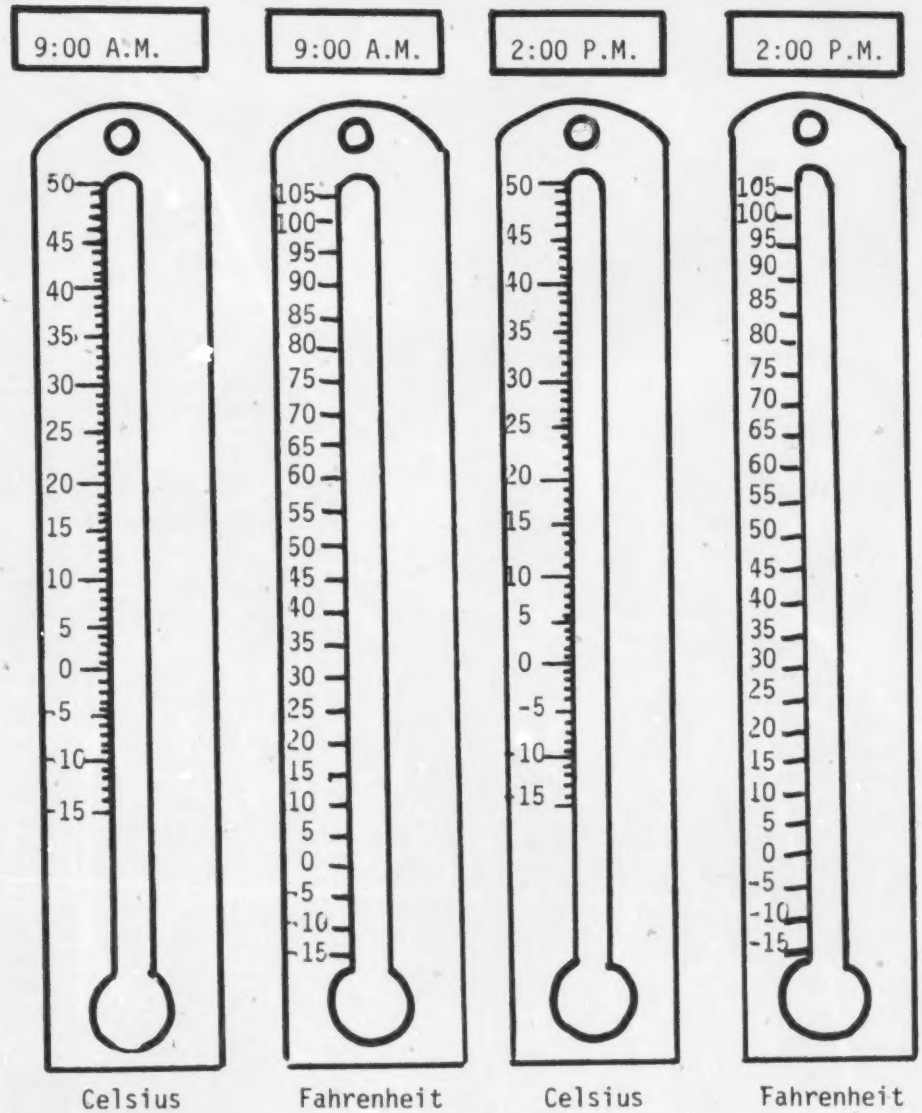
DIRECTIONS: Match the name of the medical person with the job that person does by putting the letter before the worker.

_____ 1. PATHOLOGIST	a. A person who designs and fits artificial arms and legs.
_____ 2. CYTOTECHNOLOGIST	b. Fills orders for medication as prescribed by a physician.
_____ 3. PHARMACIST	c. A scientist who specializes in the study of tissues, fluids, and body secretions.
_____ 4. PROSTHETIST	d. Doctor who supervises giving x-ray.
_____ 5. RADIOLOGIST	e. A doctor who specializes in studying cells.
_____ 6. ANESTHESIOLOGIST	f. Scientist who studies living things.
_____ 7. BIOLOGIST	g. Gives anesthetic to make patient insensitive to pain.
_____ 8. CHEMIST	h. A person who designs and fits braces and splints.
_____ 9. ORTHOTIST	i. Diagnoses and treats disorders of the teeth and gums.
____ 10. DENTIST	j. A scientist who analyzes and rearranges matter.
____ 11. PHYSICIAN	k. A person who is concerned with the prevention, diagnosis and treatment of illnesses.
____ 12. OPTHAMOLOGIST	l. Specializes in medical care of children.
____ 13. PEDIATRICIAN	m. Specializes in the treatment of eye diseases.
____ 14. CARDIOLOGIST	n. Treats women during pregnancy.
____ 15. OBSTETRICIAN	o. Specializes in the heart and its disorders.
____ 16. PSYCHIATRIST	p. Is concerned with prevention, diagnosis and treatment of animal diseases.
____ 17. SURGEON	q. Specializes in studying human behavior and mental illness.
____ 18. PHYSICAL THERAPIST	r. Performs surgery to treat illnesses.
____ 19. DENTAL HYGIENIST	s. Treats patients with bone, muscle, nerve and joint disorders as the doctor prescribes.
____ 20. VETERINARIAN	t. Cleans teeth.

ACTIVITY PAGE

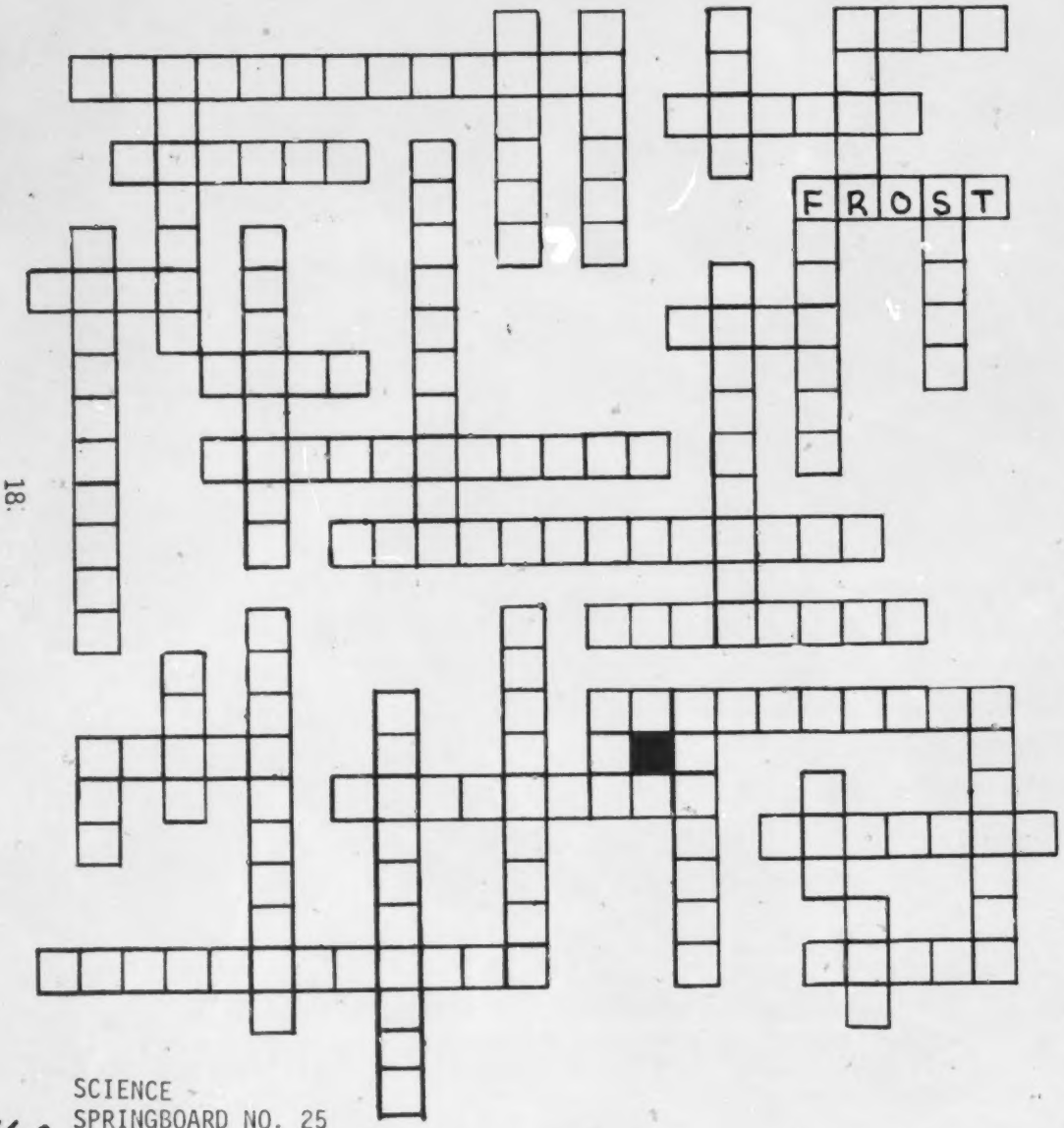
TWO KINDS OF THERMOMETERS

Put up one Celsius and one Fahrenheit thermometer. Read the thermometers in the morning and again in the afternoon. Record the temperatures. Keep a record for one month on a graph.



ACTIVITY PAGE

WEATHER WORDS AND MORE WEATHER WORDS



All the words in this puzzle have to do with the weather. Using each word only once, fill in the blanks with the words below. (Hint: There is only one eleven-letter word and one twelve-letter word).

3 letters
dew
fog
low
wet

4 letters
snow
rain
hail
cold
wind
high

5 letters
sleet
radar
frost
front
moist

6 letters
rising
clouds
freeze
stormy

7 letters
tornado
falling
air mass
predict
records

8 letters
humidity
wind vane

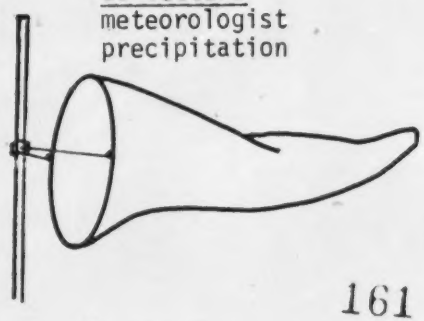
9 letters
saturated
telemeter
barometer

10 letters
air current
atmosphere
anemometer
stationary
weather map

11 letters
air pressure

12 letters
psychrometer

13 letters
meteorologist
precipitation



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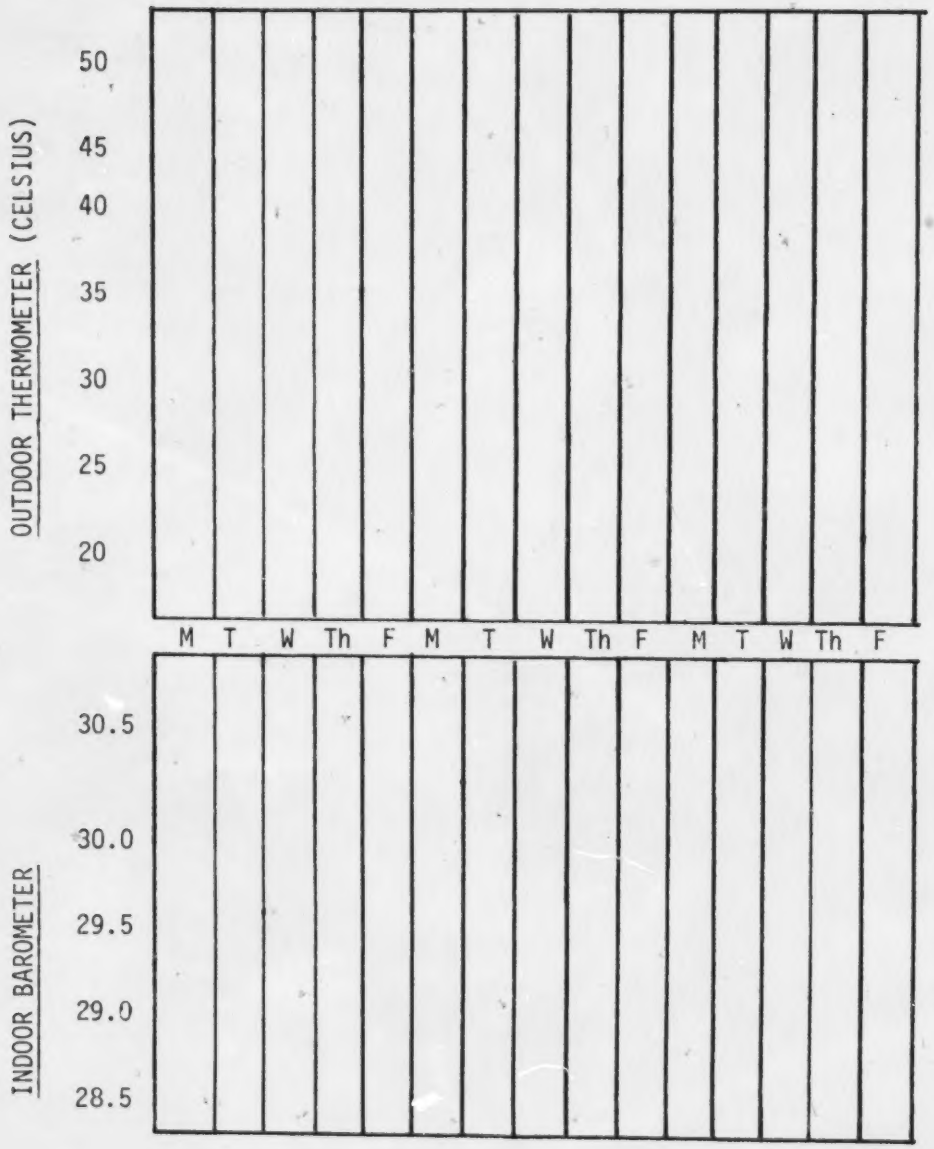

ACTIVITY PAGE

LITHO-, ATMO-, HYDRO-, AND BIO-;
FOUR BIG SPHERES

The earth consists of four spheres:
- solid earth (lithosphere) -- rocks and soil
- gaseous envelope (atmosphere) -- air
- liquid portion (hydrosphere) -- water
- life zone (biosphere) -- living things and places where they live

Below is a list of substances from the four spheres. Decide which substance comes from each of the four spheres and list them in the right sphere.

clouds	parasites	nitrogen	oxygen
quartz	fossils	bacteria	hail
oil	coal	smog	snow
children	pigs	water power	emeralds
sleet	carbon dioxide	trees	rain

Lithosphere (rocks & soil)	Atmosphere (air)	Hydrosphere (water)	Biosphere (living things)
1.	1.	1.	1.
2.	2.	2.	2.
3.	3.	3.	3.
4.	4.	4.	4.
5.	5.	5.	5.

Workers are concerned with each of the four spheres. It is important that we are aware of the people who care for each of the spheres. Below is a list of workers. Decide which workers work in each sphere.

meteorologist	air pollution expert	geologist	archeologist
dentist	teacher	lumber mill worker	weather balloon navigator
coal miner	scuba driver	dam builder	oceanographer
water tester	air traffic controller	climatologist	forest ranger
diamond seeker	oil driller	farmer	water well driller

Lithosphere (rocks & soil)	Atmosphere (air)	Hydrosphere (water)	Biosphere (living things)
1.	1.	1.	1.
2.	2.	2.	2.
3.	3.	3.	3.
4.	4.	4.	4.
5.	5.	5.	5.

4-6

HAND BOOK EVALUATION

What is your position in education? (Check one)

_____K-3 teacher
_____4-6 teacher
_____7-8 teacher
_____Occupational Information Coordinator
_____Counselor
_____Administrator
_____Other (specify) _____

Circle the appropriate response.

1. Which of the following best describes your use of the Hand Book?

Used more than 10 teacher directed activities and more than 10 student activity sheets.	Tried 10 or less of the teacher directed activities and a few of the student activity sheets.	Tried less than 10 of the teacher directed activities.	Only looked at it briefly.

2. How clear and easy to understand were the teacher-directed activities?

Extremely Clear	Quite Clear	Somewhat Clear	Hardly Clear	Not at all Clear

3. How suitable for your classroom use are the student activity pages?

Extremely Suitable	Quite Suitable	Somewhat Suitable	Hardly Suitable	Not at all Suitable

4. Generally, to what extent were the students motivated to do the student activity pages?

Extremely Motivated	Quite Motivated	Somewhat Motivated	Hardly Motivated	Not at all Motivated

5. How suitable was the material for the grade level indicated?

Extremely Suitable	Quite Suitable	Somewhat Suitable	Hardly Suitable	Not at all Suitable

6. For you, how easy to use was the Hand Book?

Extremely Easy	Quite Easy	Somewhat Easy	Hardly Easy	Not at all Easy

7. Have the activities increased your understanding as to how subject matter areas car be adapted to include occupational information?

Yes	Undecided	No

8. How useable were the Social Studies Activities?

Extremely Useable	Quite Useable	Somewhat Useable	Hardly Useable	Not at all Useable

9. How useable were the Mathematics Activities?

Extremely Useable	Quite Useable	Somewhat Useable	Hardly Useable	Not at all Useable

10. How useable were the Science Activities?

Extremely Useable	Quite Useable	Somewhat Useable	Hardly Useable	Not at all Useable

11. How useable were the Language Arts Activities?

Extremely Useable	Quite Useable	Somewhat Useable	Hardly Useable	Not at all Useable

12. What were the three best features of the Hand Book?

1.

2.

3.

13. What were the three weakest features of the Hand Book?

1.

2.

3.

14. Overall, how would you rate the Hand Book?

Excellent	Above Average	Average	Below Average	Poor

15. What additional comments would you like to make about the Hand Book?

THANK YOU FOR YOUR COMMENTS.

Please return to:

Peggy Pool
Department of Adult, Vocational and Technical Education
Illinois Office of Education
100 North First Street
Springfield, Illinois 62777

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